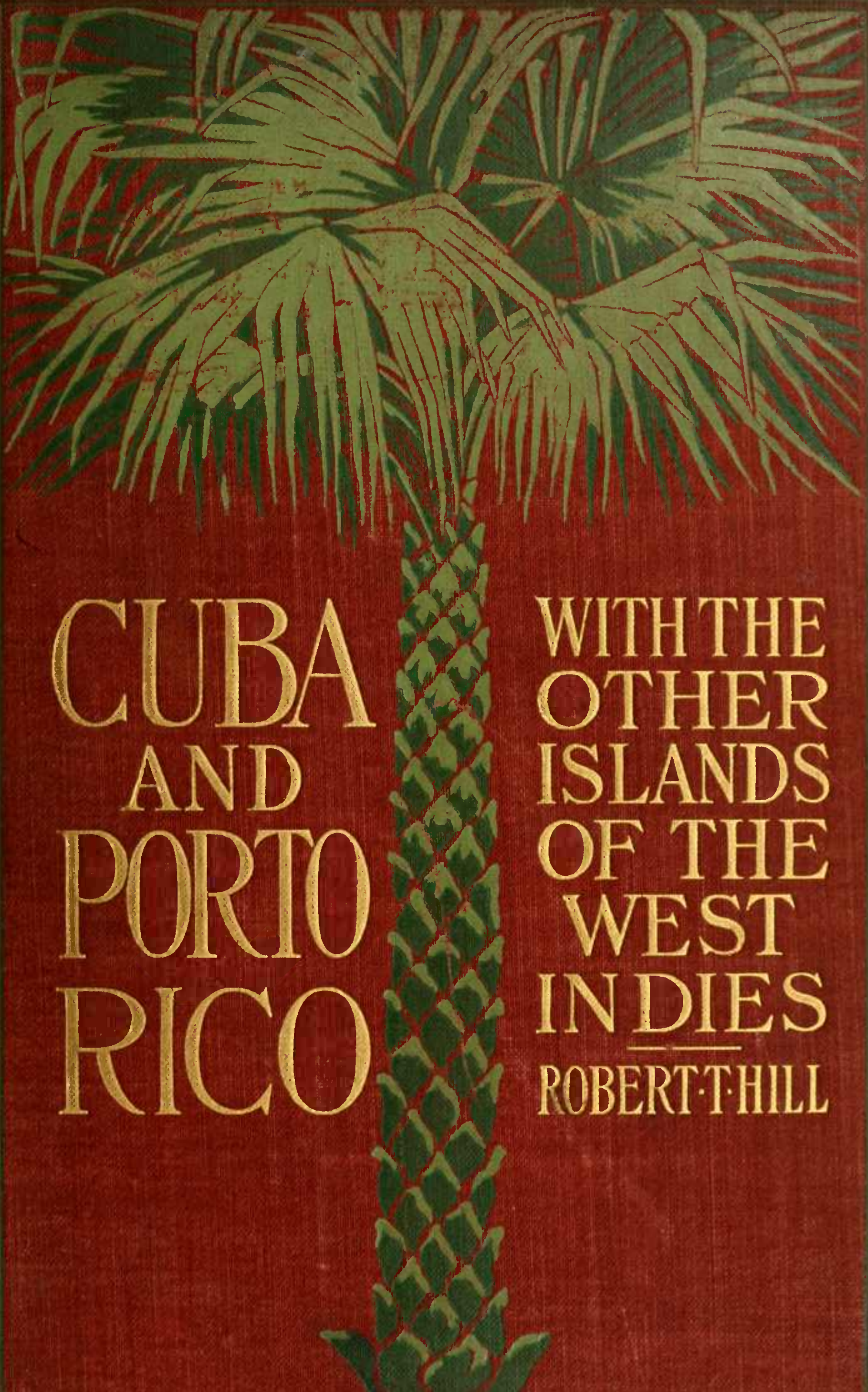

CUBA AND PORTO RICO

WITH THE OTHER ISLANDS OF THE WEST INDIES

ROBERT·T·HILL

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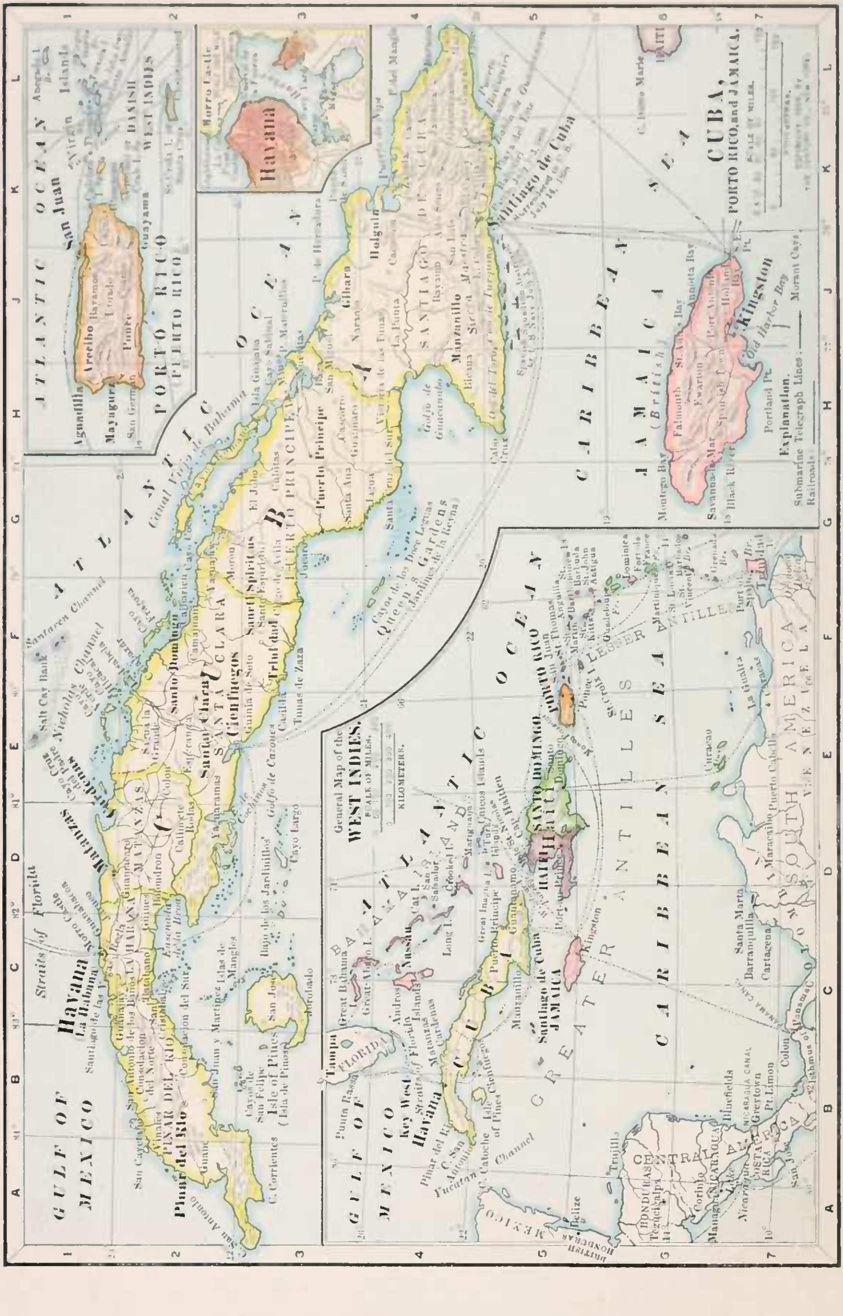
CUBA, PORTO RICO, and JAMAICA.
Explanation.
Submarine Telegraph Lines
Railroads
PORTO RICO (PUERTO RICO)
Havana
General Map of the WEST INDIES.
SCALE OF MILES.
KILOMETERS.
GULF OF MEXICO
ATLANTIC OCEAN
CARIBBEAN SEA
JAMAICA (British)
Kingston
Santiago de Cuba
Straits of Florida
PINAR DEL RIO
HAVANA
MATANZAS
SANTA CLARA
PUERTO PRINCIPE
SANTIAGO DE CUBA
Isle of Pines
GREATER ANTILLES
LESSER ANTILLES
SOUTH AMERICA
CENTRAL AMERICA

CUBA AND PORTO RICO

WITH THE OTHER ISLANDS
OF THE WEST INDIES

◆

THEIR TOPOGRAPHY, CLIMATE, FLORA,
PRODUCTS, INDUSTRIES, CITIES, PEOPLE,
POLITICAL CONDITIONS, ETC.

BY

ROBERT T. HILL

OF THE UNITED STATES GEOLOGICAL SURVEY

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TO

PROFESSOR ALEXANDER AGASSIZ

THIS WORK IS DEDICATED IN APPRECIATION OF HIS
RESEARCHES INTO THE GEOGRAPHY OF THE
WEST INDIAN SEAS AND
ISLANDS

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CONTENTS

CHAPTER I

THE GEOGRAPHIC RELATIONS OF THE WEST INDIES

PAGE

Position relative to the continents. Types of the surrounding lands. The east-and-west trends of the Antillean Mountains. Differences between the Gulf and Caribbean basins 1

CHAPTER II

THE WEST INDIAN WATERS

The American Mediterranean. Its area and littorals. Distinctness from the oceanic basins. The currents and winds inducing the equable temperature and conditions of life. The remarkable submarine configuration. The great deeps and flooded mountains. Peculiar aspects of the life of the waters. Influence of the coral polyps in making the rocks of the islands. Passes into the Atlantic 7

CHAPTER III

CLASSIFICATION OF THE WEST INDIAN ISLANDS

Their number, area, and populations. Antithetic nature of their origin, configuration, and resources. Classification into groups of similar type. The Great Antilles. The Bahamas. The Caribbean chain. The South American islands of the Trinidad type. Reefs and keys. Their political organization 18

CHAPTER IV

THE GREAT ANTILLES

Their individuality. Distinctness of physical characters from those of the United States. Continental diversity of their configuration as compared with the monotypic character of the other islands.

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PAGE
The Antillean mountain system. Variety of resources. Total population. Diversity of social conditions presented in the four chief islands 27

CHAPTER V

THE ISLAND OF CUBA

Physical features. Situation, commercial and strategic position. Outlines, dimensions, area. The configuration. The coast and littoral. Abundance of harbors. The bordering keys. The interior mountain ranges. The plains of Cuba. The *cuchillas* of the east. The terraces of Guantanamo. Valleys and depressions. Rivers, lakes, and swamps. Caves and scenic features 33

CHAPTER VI

CLIMATE, FLORA, AND FAUNA

Temperature and precipitation. Native trees and flowers. The royal palm. Scarcity of mammals. Birds, reptiles, and insect life . . 50

CHAPTER VII

HEALTH AND SANITATION

Natural healthfulness of the island. Ordinary diseases due to tropical situation. Epidemics and yellow fever. Hygienic precautions and suggestions 57

CHAPTER VIII

GEOGRAPHIC SUBDIVISIONS

Administrative departments. Numerical population. Résumé of previous history leading to present conditions. Administration and government. Absolutism of authority. Its effects and influences. Religion and education 62

CHAPTER IX

THE RESOURCES OF THE ISLAND

Agricultural supremacy. The cultivation of sugar. The superior advantages of Cuba for sugar-culture. The plantations described. Tobacco-culture. The *vegas* of the Vuelta Abajo. Skill of Cuban tobacco-planters. Coffee, fruits, and minor agricultural products. Cattle and live stock. Minerals 76

CHAPTER X

COMMERCE AND TRANSPORTATION

PAGE

Harbors, railways, highways. Sources of wealth. The large commerce of the island. Commercial value of the island to Spain. Trade with the United States 86

CHAPTER XI

THE PEOPLE OF CUBA

Misconceptions concerning the people of Cuba. Degrees and variety of people. The five classes of people. The Spaniards and other foreigners. The white Cubans. Effects of disenfranchisement and conscriptions. Hospitality and courtesy. Strong family attachments. The Cuban women. The laboring classes. The colored and black population. No danger of negro supremacy . . 97

CHAPTER XII

CUBAN CITIES: HAVANA

Large number of cities in proportion to population. Havana and adjacent towns. Imposing appearance from the sea, and picturesque location. The bay and shipping. Prevalent building-material and type of architecture. The central plaza. European aspect of the city. The Prado. Notable structures. Tomb of Columbus. Charitable institutions. Homes and private dwellings. The business streets. Street-cars and carriages. Places of recreation. Pinar del Rio. Cabanas and Mariel 107

CHAPTER XIII

OTHER CUBAN CITIES

Matanzas. Beauty of the surrounding country. Cardenas. Sagua la Grande. Cienfuegos. Trinidad. Santa Clara. Puerto Principe, Bayamo, and Holguin. Manzanillo. Santiago de Cuba. Guantanamo. Baracoa 120

CHAPTER XIV

THE FUTURE OF THE ISLAND

The coming industrial rehabilitation. Limitations of climate and possibilities. Opportunities for small farming. The reopening of

PAGE
the sugar-plantations. Industrial openings. Future railway construction and public works. Harbors and municipal improvements. Commercial expansion 134

CHAPTER XV

THE ISLAND OF PORTO RICO

Situation and physical features. Configuration. Outline. Picturesque topography. Drainage. Abundance of rivers. Flora and fauna. Geology. Climate. Hygiene and sanitation 145

CHAPTER XVI

HISTORY AND ADMINISTRATION

Spanish character of its institutions and peoples. Uneventful course of its progress. Government and administration. Religion and education 154

CHAPTER XVII

TRANSPORTATION, AGRICULTURE, INDUSTRY, AND COMMERCE

Harbors. Railways. Highways. Telegraph. Diversified nature of the agriculture. Large number of small farms. Sugar-estates. Coffee-culture. Meñores. Importance of the cattle industry. Commerce and trade. Bad condition of the currency 158

CHAPTER XVIII

THE PEOPLE

Statistical details of number, sex, nativity, race, and literacy. Excess of males. Small proportion of foreign people. Divisions into classes. The "Spaniards" (white Porto Ricans). The gibaros, or peasantry. The negroes. Former conditions of slavery in Porto Rico 164

CHAPTER XIX

CITIES OF PORTO RICO

San Juan. Ponce. Mayaguez. Aguadilla. Arecibo. Fajardo. Naguabo, Arroyo, San German, and small towns. Islands attached to the government of Porto Rico 172

CHAPTER XX

JAMAICA

PAGE
Geographical features of the island. Its central position in the West Indies. The Blue Mountain scenery. The limestone plateau. The coast border and plains. Flora, fauna, climate, sanitation 185

CHAPTER XXI

JAMAICA (*Continued*)

A model British colony. Respect for law and order. Early history and administration. Agriculture. Rise of the fruit industry. Commerce. Railways. Excellent highways 202

CHAPTER XXII

JAMAICA (*Continued*)

Cities and villages. Kingston. Spanish Town. Port Antonio. Montego Bay. Rural life. The people. Excess of the black population. Color-line and distinctions. Dress and habits of the blacks. Folklore of the negroes. A peculiar alphabet. Dependencies of Jamaica 219

CHAPTER XXIII

THE ISLAND OF SANTO DOMINGO

Difficulties of nomenclature. Geographical features of the island. Irregularity of outline. Mountains and valleys. The Alps of the Antilles. Classification of the ranges. Rivers and lakes. Climate. Geology. Fauna 236

CHAPTER XXIV

THE REPUBLIC OF SAN DOMINGO

Political and social conditions of the island as a whole. The republic of San Domingo. Interesting early history. The present government and administration. Commerce and agriculture. Mineral resources. Population. Predominance of mulattos. Old San Domingo city. Early American landmarks. Other points of interest 251

CHAPTER XXV

THE REPUBLIC OF HAITI

PAGE

Its mountainous character. Extensive coast-line. Its constitution and organization. Education and religion. Commerce and revenue. Communication. Cities (Cape Haitien, Port de Paix, Gonaïves, St. Marc, Port-au-Prince, Aux Cayes). The people. Supremacy of the blacks. Race antipathies. Personal appearance and domestic relations of the Haitians. Superstitions. The struggle for liberty. The blacks not to blame for the condition of the republic. Island products and commerce 263

CHAPTER XXVI

THE BAHAMAS

General geographic features. Dissimilarity to other West Indian Islands. Products and population. Poverty and decadence of the people. Varied race character of the blacks 296

CHAPTER XXVII

THE LESSER ANTILLES

Natural beauty of the islands. Distribution among many governments. Differentiation into four types 305

CHAPTER XXVIII

THE VIRGIN ISLANDS AND ST. CROIX

Their Antillean character and position. Geological character. Various kinds of government. St. Thomas. St. John. Virgin Gorda. Anegada. St. Croix 309

CHAPTER XXIX

THE CARIBBEE ISLANDS

Classification into volcanic and calcareous subgroups. The Anguillan subgroup. Sombrero. Anguilla. St. Barts. St. Martin. Barbuda. Antigua 318

CHAPTER XXX

THE VOLCANIC CARIBBEES

PAGE

Singular beauty of the islands. Flora, fauna, and geological character. Saba. St. Eustatius. St. Christopher. Nevis. Montserrat 326

CHAPTER XXXI

THE ISLANDS OF GUADELOUPE AND DOMINICA

Government and resources of Guadeloupe. Basse-Terre. Grande-Terre. Maria Galante. Désirade. Les Saintes. Cities and towns of Guadeloupe. Dominica the beautiful. A fertile soil awaiting cultivation . 337

CHAPTER XXXII

THE ISLAND OF MARTINIQUE

Beauty of its landscape. A description of the forests. History and present economic condition. The city of St. Pierre. Botanical gardens. Fort-de-France. The fantastic population 345

CHAPTER XXXIII

ST. LUCIA, ST. VINCENT, THE GRENADINES, AND GRENADA

England's stronghold in the West Indies. The Pitons. Agricultural depression. Recollections of Rodney 357

CHAPTER XXXIV

THE SOUTH AMERICAN ISLANDS

Trinidad, Tobago, and Curaçao. The peculiar geographical features of Trinidad. Port of Spain. Political conditions. Population and people. The island of Tobago. Curaçao, the capital of the Dutch West Indies 365

CHAPTER XXXV

BARBADOS

Insular position of the island. The coralline origin of its soils. Government and economic conditions. The Barbadians. Density of population. The struggle for existence 373

CHAPTER XXXVI

GEOLOGICAL FEATURES OF THE WEST INDIES

PAGE

General paucity of mineral resources. Iron. Manganese. Salt. Phosphate. Sulphur. Asphaltum. Peculiar geological history of the region. Its bearing upon the myth of Atlantis 380

CHAPTER XXXVII

RACE PROBLEMS IN THE WEST INDIES

Varied nationality and character of the inhabitants. Condition of the native whites. Possibilities of the white race. The negroes. Their general character, habits, and moral condition. Obiism, or witchcraft 387

CHAPTER XXXVIII

THE FUTURE OF THE WEST INDIES

Vicissitudes which have been survived. Depression of the sugar industry. The bane of alien land-tenure. Bad effect of political distribution. Prospective relations with the United States . . . 400

INDEX 409

LIST OF ILLUSTRATIONS

MAP OF THE WEST INDIES . . . . *Frontispiece*

FACING PAGE

TRAVELER'S PALM, GARDEN, ST. PIERRE, MARTINIQUE—NOT INDIGENOUS 16

COCOANUT-PALMS, PLUMB POINT LIGHTHOUSE, JAMAICA . 24

BANIAN-TREE, BRIDGETOWN, BARBADOS 24

PLAZA IN FRONT OF CAPTAIN-GENERAL'S PALACE, HAVANA 32

GEOLOGIC MAP OF THE ISLAND OF CUBA 40

MATANZAS 44
Church of Montserrat—Yumuri Valley, near Matanzas

AFTERNOON DRIVE IN RURAL CUBA 48

MATANZAS 52
Drive to the Bellamar Caves—Royal Palms, Sugar-Estate—Official Building

HAVANA 57
View in the Botanical Gardens—Fruit-Stand—A Market-Place—"Leche a Domicilio"—Donkeys Loaded with Wood

SCENES IN CUBA 60
Pack-Horse Loaded with Rum—A Funeral Car

HAVANA 64
Plaza des Armas and Captain-General's Palace—Templete Monument, Erected at Site of First Mass Said in Havana

HAVANA 72
Regla, the Brooklyn of Havana, Ferry-Boat in Foreground—At the Boat-Landing—Water-Front, Havana Bay

SUGAR-HOUSE ON PLANTATION, CUBA 76

FACING PAGE
SCENES IN CUBA 78
A Car-Load of Sugar-Cane, Santa Anna—Cutting Sugar-Cane with Machete

SCENES IN CUBA 80
Huts on Solebad Estate, near Cienfuegos—Hormiguera Sugar-Estate, Cienfuegos—Pineapples—Bananas near Cienfuegos

MINE OF IRON ORE NEAR JURAGUA, TWELVE MILES EAST OF SANTIAGO DE CUBA 84

HAVANA 88
Morro Castle from the East—Panorama of the Prado

SCENES IN CUBA 97
A Country House—A Cuban Peasant House of the Better Sort—Peasant Holding a Wooden Plow

A CUBAN TYPE 102

THE SAN CARLOS CLUB, SANTIAGO DE CUBA 104

THE YUMURI VALLEY NEAR MATANZAS, CUBA 108

HAVANA 112
Old Church Used as Custom-House—The Cathedral

GENERAL VIEW OF HAVANA FROM CABANAS SHORE . . 116

MATANZAS—GENERAL VIEW 120

VIEW IN THE PLAZA, CIENFUEGOS 124

SANTIAGO DE CUBA 126
General View—The Cathedral

SANTIAGO DE CUBA 128
Smith Key—Morro Castle

SANTIAGO DE CUBA 130
Plaza—Calle de Puerto

SANTIAGO DE CUBA 132
Plaza—Street Scene—Market—Negroes

BARACAO, CUBA 136

PONCE, PORTO RICO 145
Cascade of Plaza de las Delicias—Isabel Street

ENTRANCE TO SAN JUAN, PORTO RICO 152

A STATE FUNERAL, SAN JUAN, PORTO RICO 160

PORTO RICO 168
Utuado—Plaza and Cathedral at Arecibo—Palms near San Juan

FACING PAGE

JAMAICA 185
Port Royal from the Sea—Rock Coast and Pseudo-Atolls, Montego Bay—Harbor of Port Royal

JAMAICA 188
Mountain Scenery—Newcastle Barracks

EAST INDIAN COOLIES, JAMAICA 192

CEIBA-TREE AND COUNTRY ESTATE, JAMAICA 200

CULTIVATION OF SUGAR-CANE, JAMAICA 208

A CEIBA OR SILK-COTTON TREE 216

CACTUS AND CHAPARRAL, JAMAICA 216

JAMAICA 220
Country House, Retreat Pen, Clarendon—Kingston Street Scene

JAMAICA 224
Negresses Transporting Charcoal—Logwood Collected for Shipment

JAMAICANS CARRYING BANANAS—BREADFRUIT-TREE OVERHEAD 232

SANTO DOMINGO 240
Santo Cerro Church and Nispero de Colon, or Tree of Columbus, beneath which Mass was Celebrated after the Great Victory over the Indians of La Vega—A Street Showing Cathedral

SANTO DOMINGO 256
Citadel where Columbus was Imprisoned—Alleged Coffin of Columbus

PORT-AU-PRINCE, HAITI 272
Cathedral—Street Scenes

BAHAMAS 296
Cliffs of Eleuthera Island—Watlings Island—United States Consul's House, Nassau—Street Scene, Nassau

BAY AND CITY OF ST. THOMAS 312

ENTIRE POPULATION OF A NEGRO HAMLET, ANTIGUA . . 320

ANTIGUA 322
Street Showing Cathedral and Public Library, St. John—Sugar-Estate

ST. JOHN, ANTIGUA 324
A Suburban Highway—View of City and Harbor

FORT-DE-FRANCE, MARTINIQUE 326

FACING PAGE

CARIBBEE ISLANDS 328
Town of Bottom, Island of Saba, Situated in an Old Crater—Gustavia, St. Bartholomew

ST. KITTS 332
Public Garden—View

MARKET, GUADELOUPE 338

CARIB INDIANS MAKING BASKETS, DOMINICA 340

MARTINIQUE 345
Statue of Josephine—Old Mill on Estate where Josephine was Born

MARTINIQUE 348
Landing, St. Pierre—St. Pierre

TYPES OF WOMEN, MARTINIQUE 352
Fille de Couleur—French Negress—Negro Woman—Mulatto Girl

ST. LUCIA 357
Plantations near South End—One of the Pitons

ST. VINCENT 360
Georgetown—Kingstown

ST. VINCENT 362
Sugar-Plantation, Fort Davinet—Windward Coast—Market

GRENADA 364
St. George's Harbor—St. George

TRINIDAD 366
Public Offices—Port of Spain

PITCH LAKE, TRINIDAD 368

TRINIDAD 370
Coolies—Coolie Houses

BARBADOS 373
Gathering Sugar-Cane—Public Library, Bridgetown—Laundresses—Turning the Windmill

BRIDGETOWN ROADSTEAD, BARBADOS 374

BARBADOS 376
Street Scene, Bridgetown—Country Church—Landing Wharf, Bridgetown

BARBADIAN NEGROES 378
Group of Overseers—Trinket-Seller—Pottery-Vender

FACING PAGE

COAST VIEWS, BARBADOS 380
Rolled Boulder from Elevated Reef—Horizontal Sea Erosion of Rolled Boulders—Effect of Trade-Winds on Vegetation—Bathing Beach and Elevated Reef—Sea-Coast Scene—Elevated Reef Terrace

BARBADIAN TYPES 387
Fisherman—Earthenware-Seller—Street Arab

TYPES, BARBADOS AND GUADELOUPE 388
Going to Market, Barbados—Field-Hands, Barbados (Note Characteristic Barbadian Heads)—Woman in Characteristic Costume, French Mulatto, Guadeloupe

ST. VINCENT 390
Carib Indians—Carib Rock-Inscriptions

ST. VINCENT 392
Negro Hut—African Basket-Wattle House, Board House, Adaptation of Same

ANTIGUA AND BARBADOS 394
Negro Hut, Antigua—Negroes and Low Whites, East Side of Barbados—Fisherman's Hut, Barbados

NEGRO HUT, ST. VINCENT 396

SUGAR-CULTURE, BARBADOS 400
Newcastle Sugar-Mill—Spreading Bagasse to Dry for Fuel—Cane-Grinding by Windmill Power

IMPOVERISHED SUGAR-ESTATES, BARBADOS 404

INTRODUCTION

WE have recently been called a nation of Yankee traders. This compliment, although not so intended, classifies us among the most highly civilized nations, which are those that excel in commerce, and signalizes our need of foreign markets.

The great nations of Europe are apportioning the territories of weaker peoples among themselves for the purpose of monopolizing their trade. Whether the United States is to enter into such operations or not, we cannot say, nor is it the purpose of this book to discuss the question. Our future prosperity as a nation depends largely on the equality of terms upon which our products can obtain market abroad. Every square mile fenced in by tariff laws of prohibitive nations is our commercial loss; every one opened is our gain. It was Spain's attempt to divert the trade of Cuba from its natural channels by discriminative duties that fomented the discord leading to the present war; it was the protective barrier placed by us against the sugar of the West Indian Islands which almost paralyzed them.

We are not only a nation of traders, but we are a nation of Yankee tinkers, and it is our scientific expertness in developing natural resources, in increasing the productive labor of the individual, and in quickening transportation, that has enabled us to develop wildernesses and to revive countries which have grown old in conservative ways. Our methods of industrial development are scientific, and the art of commerce goes hand in hand with geography. Not far from our borders is the wonderful and interesting West Indian region, which is already a fair field of trade, and which, present events indicate, will be a better one in coming years. American industrial methods may be applied to this region, and it is an opportune moment to make a scientific presentation of its conditions and possibilities.

It is a difficult task to convey a correct impression of the natural and economic conditions of the tropical American countries and their inhabitants. Too often these are judged by the standards of our own surroundings and customs, which are those of an entirely different environment. The configuration of the lands, geological structure, climate, and products of the soil—upon all of which culture depends—are so different from those of our own country that we are confronted at the outset with a lack of suitable bases for comparison. The peoples and countries of the American Mediterranean cannot be classified together as social or geographic units. Nowhere in the world are so many extremes of natural conditions, population, and government to be found. As elsewhere, climate, configuration, and fertility of soil are there the first considerations that influence productivity, while political organization has also largely conditioned the degree of civilization. Neighboring localities present great contrasts. Here are lands which have grown up through the agency of the coral-reef builders, eminences piled high by vast volcanic extrusions, high plateaus, and mountain ridges of the lifted and folded sediments of the ocean's floor, each of which, with modifications of altitude and climate, produces a soil differing from the others in agricultural and economic possibilities. The reef-veneered Barbados, the volcanic areas of Central America, the Windward Islands, and the high, arid plateau of Mexico, respectively, are types of these contrasting lands, and the Great Antilles are peculiar combinations of all.

There is an impression that the peoples of these countries are either negro or Spanish, and that despotism or anarchy, due to the character of the inhabitants rather than to environment and administration, are the prevalent political conditions. In these heterogeneous conceptions the dominant Indian population of Mexico, the negroes of Haiti, and the white creoles of the islands are indiscriminately considered together. But this region is a most remarkable example of the combined influences upon mankind of geography, race, and government, and is practically a great sociological laboratory where many human species are being differentiated.

It is true that some people of Spanish descent, in countries like Colombia, Honduras, and San Salvador, where population is scattered and separated by topographic obstacles fatal to the establishment of strong governments, are normally in revolt. There are other Spanish-American republics which, in comparison with the government of the European country from which they seceded, are fair models of stability and prosperity, such as Costa Rica,—where capital punishment has been abolished,—which is as peaceful as Acadia, and boasts that it has never had a war. Argentina and Chile are worthy of consideration; and Mexico, by gigantic strides, since free from European interference, has changed from a land of revolution and banditti to the home of a prosperous industrial and commercial nation.

The conditions of the tropical countries in which the negro race prevails are indeed varied, but in some instances better than is generally supposed. The Haitians have made more progress than is credited to them; their revolting experience has caused us to overlook the fact that other negro populations, such as those of Jamaica and Barbados, —where the blacks outnumber the whites in the proportion of fifty to one,—under beneficent English colonial control, at least present orderly spectacles. Of these tropical countries and peoples, we are now chiefly concerned with the West Indies, especially Cuba, with a secondary interest in Porto Rico—the only islands where the white race has become acclimated and numerically dominant, and whose political administrations have been most disturbed, despite their superior natural resources. The other islands present equally interesting economic and sociologic studies.

The West Indies since their introduction to European civilization have been attractive objects of interest and have presented a wonderful panorama of human and natural phenomena. They have been the theater of historic action, the center from which early American exploration radiated, and the base of geographic operations during those entrancing years when mariners ever scanned the horizon in expectation of discovering the new and the wonderful. They have been the battle-ground of the New World of nations from the formative centuries until the present civilization. They have been the grand arena of the war of races. First, the Spanish conquered the aborigines; then English, Dutch, French, and Dane, anxious for participation, strove to share in the possession of the Indies, and even individuals, as pirates and bucaneers, took part in the general seizure. The din of European arms over these waters continued intermittently until the beginning of this century. Cities with old-world walls, fortifications, and institutions had grown opulent in the West Indies, or had been destroyed by the guns of foreign foes, before the landing upon Plymouth Rock or the settlement of Jamestown had initiated Anglo-American civilization. Every island is strewn with old cannon and picturesque ruins of antique battlements which attest the days when individuals and nations preyed upon the Spanish Main. Here Morgan, Drake, Grenville, De Grasse, Rodney, Nelson, Albemarle, and other sea warriors of note won victories or suffered defeat, and many a brave forefather from our own colonies participated in the struggle.

African slaves were implanted upon territory gained by Caucasian from aborigine. By the close of the last century, when the civilized nations had about adjusted their territorial disputes, the slaves had attained numerical strength, and from time to time rose in revolt—usually to be suppressed with a loss of life most appalling, but in some cases achieving a success that so completely banished European life and influences that civilization asks in wonder if this Eden of nature is not being transformed into an American Africa, with its barbarous rites and superstitions. As a climax to this tumult we have lately seen in Haiti the spectacle of pure negro blood exterminating the mulattos.

These islands were the commercial paradise of the first three centuries of American settlement, and lands now gone back to jungle sold as high as a thousand dollars an acre, "in those booming days when sugar was at 32." Here manufacturers found market for all the weaves and notions of their making. The West India trade enriched the merchants of Barcelona and London, and the products of the plantations established many a fortune in England, France, and Spain. Even now their trade exceeds that of all Mexico and Central America.

In the era of their prosperity noble families of European descent founded establishments of patriarchal grandeur, luxurious and hospitable beyond description. In these times the islands gave birth to Alexander Hamilton, our first great financier, and Josephine, who became Empress of the French. Here, too, Nelson, then a captain in the British navy, was married to the wife who was faithful to his unfaithfulness. No greater proof can be found of the value of the West Indies at the close of the last century than the fact that to England the loss of the colonies which now constitute our republic seemed of secondary importance to Rodney's great naval victory over the French off Martinique, whereby her supremacy in the West Indies was established. In the light of eighteenth-century values the American colonies were of trivial worth in comparison with the West Indies, and we may perhaps thank our destinies that England at that time devoted her superior forces to retaining the latter.

To the naturalist the islands are a paradise, and in their plants, animals, and rocks he finds not only the new and wonderful, but grand problems of origin and distribution. How these lands arose from the sea, and what their relations to the continents are, must still be regarded as questions not satisfactorily answered.

From the esthetic standpoint these islands have been the inspiration of noble works of prose and poetry. Scenic pictures of mountains, valleys, and coast everywhere overwhelm the eye with wealth of form, while rich vegetation of a hundred tints, shaded or illuminated by clouds and sunlight, presents an unrivaled wealth of color. The whole, set in a framework of glorious sea, is a marvelous natural picture.

Books have been written treating of various places and parts of the West Indies, but, within the past quarter-century at least, none which presents a geographic and economic conspectus of the subject as a whole—a fact apparent to the traveler who searches in vain for such a reliable guide-book. Some writers, like Stoddard, Ober, St. John, and Bryan Edwards, have presented charming glimpses of certain portions of the islands. Kingsley, in "Westward Ho!" and "At Last," has given descriptions of scenes and localities which will have a permanent place in literature. Michael Scott, the author of "Tom Cringle's Log," Mayne Reid, Marryat, and Robert Louis Stevenson have produced amusing sketches of scenes here and there. Samuel Hazard has written two instructive books on the every-day scenes and life of Cuba and Santo Domingo. Lafcadio Hearn's "Two Years in the West Indies," giving the strange story of the life and decadence of the French island of Martinique, is a most readable and instructive book. St. John has graphically told the heroic story of black Haiti's struggles for freedom and its revolting sequence. Froude has written of the English in the

West Indies, and Anthony Trollope has given a conspectus of the islands in the middle of the present century, just before the epoch of emancipation which upset their industrial system; and this should be read by all who wish to see the changes which fifty years have wrought. Captain Marryat has recorded in fiction, and John Fiske in history, the stories of the bucaneering and freebooting on the Spanish Main. Of the more solid historical works, John Fiske's writings, especially his "Discovery of America" and "Old Virginia and her Neighbors," give admirable summaries of earlier West Indian events and the intimate relations that once existed between the American colonies and the islands.

Of economic treatises there are several special works, such as M. Ramon de La Sagra's "Histoire physique, politique et naturelle de l'île de Cuba," Humboldt's writings, Tippenhauer's "Haiti," Schomburgk's "Barbados," and several French works on the present and former possessions of France. These, however, with the exception of Tippenhauer's "Haiti," a report of the English Sugar Commission, and various consular reports, were written in the earlier decades of the century, and treat of slave conditions which are now obsolete. Captain Mahan, in his various books and magazine articles, has described the present strategic importance of the islands and the great naval battles of the past.

Of works treating of the natural history of the West Indies there are but few of a general or comprehensive character. Exploration has been sporadic and unsystematic, although in these islands is the key to all the higher problems of zoögeography and the evolution of the continents. There is one notable exception; for years Professor Alexander Agassiz has personally conducted or inspired many explorations in this region, and has published valuable technical works thereon. His "Three Cruises of the *Blake*," a treatise on the wonderful configuration of the sea bottoms and their mysterious life, is a most readable and instructive work on the geology and zoölogy. His works on the living and fossil coral reefs, such as "The Florida Reefs," "The Cruise of the *Wild Duck*," and one on the Bahamas, are of greatest interest. To Professor Agassiz's desire to advance the knowledge of the West Indies the writer is indebted for the opportunity of several years' travel, whereby he was enabled to study their geography and geology, to observe their social and economic conditions, and to obtain experiences which have made this book possible.

The author cannot hope to present in the present work a better description of the West Indies than has been given in fragments by these earlier writers. He believes, however, that there is need for a comprehensive book on the region as a whole, and one which will treat its conditions as they appear to-day, giving the essential facts concerning the physical geography, climate, economic geology, agriculture, commerce, and social conditions of these islands, as well as the possibilities of their future development. While the work will be chiefly based upon the results of his own personal examinations, the scattered and in some instances almost inaccessible observations of others will be freely used. When statistics are given they will be presented as the best obtainable figures concerning a region where the arts of collecting and classifying such data are by no means the favorite occupations of the inhabitants.

CUBA AND PORTO RICO

WITH THE OTHER
ISLANDS OF
THE WEST INDIES

CHAPTER I

THE GEOGRAPHIC RELATIONS OF THE WEST INDIES

Position relative to the continents. Types of the surrounding lands. The east-and-west trends of the Antillean Mountains. Differences between the Gulf and Caribbean basins.

A PROPER conception of the social and economic conditions of the various West Indian Islands and their relations, or rather lack of relations, to the adjacent continents, will be facilitated by a few preliminary words upon the general geography of the American Mediterranean region, of which they are integral parts. This will avoid much unnecessary repetition in the descriptions of the various islands.

The western hemisphere is divisible into three distinct continental regions, the North, Central, and South American. North America is the most western[1] of the continents, and terminates in southern Mexico, at the end of the Rocky

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[1] In northern latitudes we look upon the Pacific as situated to our west; but were it not for the island of Cuba and the narrow isthmian neck, one could strike it by sailing almost due south from New York, and the whole of the South American continent is situated far east of the mass of North America.

Mountain region. South America is the eastern continent, and terminates with the end of the northern Andes in the Republic of Colombia. The Central American continent is an east-and-west isthmus connecting the termini of the North and South American continents. Central America and the West Indies, including the Gulf of Mexico and the Caribbean Sea (together forming the American Mediterranean), are more complex features, largely individual in their aspects, although more nearly related to one another and to the northern coast of South America than they are to the main bodies of the larger continents.

Geography has taught that the American continents are dominated by a continuous Cordilleran system running like a backbone through South, Central, and North America, connecting the whole western border of the hemisphere by one great mountain system, which has persisted through long epochs of time. This is an erroneous idea, for the so-called continental backbone is not a geographic unit, but is disconnected in places. In a later chapter I will show that the Central American isthmian barrier between the oceans was once freely invaded by the waters of the Pacific, while an entirely different isthmian bridge on the windward or eastern side of the Gulf and Caribbean Sea, now partially destroyed, probably connected or almost connected the continents from Florida to the northeast point of South America. Either this, or much of the present Central American lands, with some of the West Indian Islands, long before man appeared on this earth, formed a great archipelago—a veritable Atlantis—extending east and west between and directly across the trends of the North and South American continents.

The east-front ranges of the North American Cordilleras are largely composed of old sediments of the Atlantic Ocean which were pushed up against a preëxisting land lying to the west; they are mountain ranges with north-and-south trends, accompanied by volcanic intrusions and ejecta. Geographers show that this system abruptly terminates with the great scarp, or *abfall*, of the so-called plateau of Mexico, in longitude 97° W., a little south of the capital of that republic, and that the mountains have no orographic continuity or other features in common with those of the Central American region.

The Andean Cordilleras, which dominate the South American continental area, are largely composed of the old sediments of the Pacific Ocean, and are also accompanied by volcanic intrusions and ejecta now folded into north-and-south mountain trends. They too were pushed up against a preëxisting land buttress, but this lay to the east, instead of to the west as in the case of the North American Cordilleras. The Andean trend, which follows the western side of South America, after crossing north of the equator, bends slightly eastward and abruptly terminates in northern Colombia, in longitude 70° W. Only one doubtful spur touches the coast of the American Mediterranean, the Sierra del Marta, lying between the Gulf of Maracaibo and the river Magdalena. The Andes have no genetic connection with the ranges extending east and west along the Venezuelan coast of South America, much less with the mountains of Central America or with the great Rocky Mountain region of Mexico and the United States. The northern end of the Andean system lies entirely east of the Central American region, and is separated from it by the Rio Atrato—the most western of the great rivers of Colombia. In fact, the deeply eroded drainage valley of this stream nearly severs the Pacific coast of the Republic of Colombia and the isthmian region from the South American continent.

The trends of the great North and South American Cordilleras, the Rocky Mountain and the Andean systems, if protracted from their termini in southern Mexico and Colombia respectively, would not connect with each other through Central America, but would pass the latitude of the Antilles in parallel lines nearly two thousand miles apart. The Andean trends, if extended, would pass through Jamaica and eastern Cuba, and continue almost east of the

North American continent in the direction of Nova Scotia. A similar southward extension of the North American Cordilleras would carry them into the waters of the Pacific, crossing the equator far west of Central America and the South American continent.

In the tropical latitudes, between the widely separated termini of the North and South American Cordilleras, as above defined, and extending directly at right angles to them, lies another mountain system, to which the term "Antillean" may be applied. This has been the fundamental factor in West Indian configuration, although the system has not usually been properly appreciated by geologist and geographer, owing, no doubt, to the fact that its remarkable and continuous ranges are largely submerged beneath the waters of the Caribbean Sea.

East-and-west mountain ranges of the Antillean type occur through the Great Antilles, along the Venezuelan and Colombian coast of South America, north of the Orinoco; in the Isthmus of Panama, Costa Rica, and the eastern parts of Nicaragua, Guatemala, Honduras, Yucatan, Chiapas, and southern Oaxaca. The two elongated submarine ridges, separated by the deep oceanic valley known as "Bartlett Deep," which stretch across the Caribbean from the Antilles to the Central American coast, from the west end of the Sierra Maestra range of Cuba to the coast of Honduras, and from Jamaica to Cape Gracias á Dios, respectively, are similar in configuration to the east-and-west mountain ranges of the Great Antilles, and are, no doubt, genetically a part of them.

The Antillean system is made up of east-and-west mountain ranges composed of folded sedimentaries. Like the Rocky Mountains and the Andes, it is accompanied by volcanic intrusions and ejecta, but, instead of dominating a continental region, these uplifts practically have their greatest development on the Antillean Islands and in the submarine topography of the sea, and form a mountainous perimeter of the depressed Caribbean basin.

The great physical differences between the lands bordering the Gulf of Mexico and the Caribbean Sea are chiefly dependent upon the arrangement and relation of the Rocky Mountain, Andean, and Antillean systems of mountain folds. The first of these in its geognostic aspects and relations is distinctly North American, the second South American, and the third is peculiarly Central American. The Gulf of Mexico is an indentation into the North American continent—the restricted survival of a great interior sea which once extended over the Great Plains region of the United States, which at one time almost, if not entirely, separated North America into two great prehistoric continents, the Appalachian and Cordilleran. The basin of the Gulf is still filling up from the sediments brought down by rivers which drain nearly one fourth the area of the United States. With the single exception of its extreme southwestern indentation upon the coast of Mexico, the Gulf is surrounded by low plains composed of great sheets of subhorizontal and unconsolidated sediments deposited when its own waters occupied a larger area than at present. The entire sea margin of the Gulf region of the United States and most of Mexico is of this nature, while the north coasts of Yucatan and portions of Cuba, although modified, are related phenomena. Thus the Gulf of Mexico, instead of having a mountainous periphery like the Caribbean, is bordered by plains.

There is still another class of tropical mountains, distinct from those made of folds of the earth's sedimentary crust. These are the volcanoes which have grown by extrusion and accumulation. Sometimes they are parasitic upon the folded mother systems, sometimes independent of them. They belong to the great area of igneous eruptivity which, at least since the beginning of Tertiary time, has marked the western half of the North American continent, the northern and western sides of South America, and the eastern side of the Caribbean region. Although blending into one another, the volcanic areas of the tropics are of two distinct kinds, which we may call the quiescent and the active.

The active volcanic group occurs in four widely separated localities: 1. The Andean group of volcanoes of the equatorial region of western South America, which rise above the corrugated folds of the northern termination of the dominant South American Cordilleras. 2. The chain of some twenty-five great cinder-cones which stretch east and west across the south end of the Mexican Plateau, protruding on the terminal ranges of the North American Cordilleras. 3. The Central American group, with its thirty-one active craters, occurs diagonally across the western ends of the east-and-west folds of the Antillean corrugations, and fringes the Pacific side of Guatemala, San Salvador, and Costa Rica. This is separated from the Mexican group on the north by a quiescent volcanic area, the Isthmus of Tehuantepec, and on the south from the Andean volcanoes by the Isthmus of Panama, where no active volcanoes are found. 4. The volcanoes of the Windward chain of islands, which mark the eastern gate of the Caribbean Sea in a line directly across the eastern terminus of the Antillean Mountains. These are parallel to the Central American group, and together these two groups constitute the eastern and western borders of the Caribbean Sea.

Other regions in which volcanic activity has been quiet in recent geologic epochs are the Great Antilles, the Isthmus of Panama, the Pacific coast of South America west of the Atrato, and the Venezuelan coast of South America. Thus the Caribbean is bordered on the east and west by volcanic chains, and on the north and south by mountain folds.

CHAPTER II

THE WEST INDIAN WATERS

The American Mediterranean. Its area and littorals. Distinctness from the oceanic basins. The currents and winds inducing the equable temperature and conditions of life. The remarkable submarine configuration. The great deeps and flooded mountains. Peculiar aspects of the life of the waters. Influence of the coral polyps in making the rocks of the islands. Passes into the Atlantic.

HAVING shown the fundamental relations of the tropical American region, the essential features of its local geography can now be briefly outlined. First a word as to magnitude. When the writer first sailed for these waters he had the erroneous impression, which is shared by many, that the whole West Indian region could be seen and studied in a single season—an illusion which was dispelled by a few weeks' experience. It took some time to realize that a journey across the greater length of the Gulf and Caribbean from Galveston to the mouth of the Orinoco was nearly four thousand miles, or one third more than the distance from New York to Liverpool; that the eastern chain of islands from Florida to Trinidad was strung out for a thousand miles; and that to go from Jamaica, near the geographic center of the region, to any of the peripheral points, such as Colon, Barbados, or Nassau, was a matter of three or four days' steaming.

The waters of the Gulf and Caribbean, 615,000 and 750,000 square miles in area respectively, aggregate 1,365,-

000 square miles, or one sixth the area of the North and Central American continents, while the land area of all the islands is nearly 100,000 square miles, not quite equal to that of the State of Colorado.

The traveler who would circumnavigate the American Mediterranean, as the Gulf and Caribbean may be collectively termed, keeping the bordering lands in sight, say by entering at the Florida capes, and following the shores of Florida, Alabama, Mississippi, Louisiana, Texas, Mexico, Honduras, Costa Rica, Panama, Colombia, and Venezuela to Trinidad, and thence up the inner margins of the Windward Islands and the southern shores of the Great Antilles back to the point of beginning, would be obliged to travel twelve thousand miles—nearly one half the earth's circumference.

A word as to directions must be added. The prevalent trends are east and west in this region. The longest axes of the seas and islands are along east-and-west lines. Even the coasts of the surrounding mainlands are thus arranged. A glance at the straight east-and-west Caribbean coast of South America, Honduras, and Guatemala shows that the S-shaped outline of the isthmus also has a prevalent east-and-west direction.

Volumes might be devoted to descriptions of the wonderful waters of the American Mediterranean. They have many phases of depth, current, temperature, and life, but we can only touch upon the essentials. This great tropical body of water is not merely an arm of the ocean, indenting and almost separating the American continents, but is a deep and well-defined marine basin or series of basins, more completely closed on the Atlantic side than is apparent from a glance at the map. The numerous islets of its eastern border, the Bahamas and Windward chain, which extend from Florida to the mouth of the Orinoco, are merely the summits of steep submarine ridges, which divide the depths of the Atlantic from those of the Gulf of Mexico and Caribbean Sea; were their waters a few feet lower these ridges would completely landlock the seas from the ocean.

Further study shows that this vast tropical sea is composed of a number of distinct basins, each marked by great depths and separated by lands or shallows—a condition somewhat comparable to that of our Great Lakes, if they and their adjacent lands were united into a continuous body of water by slight regional subsidences. These secondary divisions, which appear small upon the map and have less conspicuous land inclosures, are really extensive bodies of water, such as the Mosquito Gulf, nestling in the curve of the Isthmus of Panama, and forming the southwest termination of the Caribbean Sea; the Gulf of Honduras, which is almost landlocked by Yucatan, Cuba, Jamaica, and the submerged Rosalind Bank on the south; and the Haitian Sea, or Old Bahama Channel, as the sailing-masters formerly called the long stretch of water between the Bahamas and the northern shores of the Antilles.

The American Mediterranean in its entirety may be considered a great whirlpool or oceanic river. This is caused by the tremendous velocity with which the waters of the Atlantic, moved by wind and terrestrial motion, pour into the Caribbean Sea through the straits between the Windward Islands and the passage between Cuba and Santo Domingo. These rush impetuously through the Caribbean Sea until they meet the Central American coast. Failing to find a westward passage across this barrier, they are deflected northward around the western end of the Antilles, through the Yucatan Channel, and into the Gulf of Mexico, out of which they flow to the east, through the Strait of Florida, as the great Gulf Stream. The normal westerly movement of this current through the Caribbean Sea is estimated at from ten to twenty cubic miles of water per day.

After passing at an accelerated speed through the Banks Strait, between Jamaica and the Mosquito Reef, the main stream is joined by an affluent setting from the Atlantic through the Windward Channel. Hence northwestward an enormous liquid mass passes at a velocity of from two to three miles through the Strait of Yucatan, from the Caribbean Sea, into the Gulf of Mexico. On entering the Gulf this stream ramifies into two branches; one, following the north coast of Cuba, sets toward Florida Strait, while the other broadens out in the spacious central basin of the Gulf and develops an intricate system of counter-currents. Toward the center of this nearly circular sea the waters seem to be in a state of equilibrium, while at the periphery they move parallel with, but at some distance from, the surrounding coasts. South of the Mississippi delta the turbid fluid of that great river is impelled eastward in a straight line by the blue waters of the Gulf Stream, until a junction is effected of the southern branches at the western entrance of Florida Strait, through which the whole mass rushes like a mighty river into the broad Atlantic. At the most narrow part, between Jupiter Inlet, on the Florida side, and Memory Rock, in the Bahamas, the stream contracts to a width of fifty-six miles, with an extreme depth of four hundred and fifty fathoms. In this limited channel the velocity varies from two to six miles, the average being about three, and the discharge, according to Bartlett, 175,000,000,000 of cubic feet per second, or 15,260,000,000,000,000 per day. Such proportions are difficult to grasp, for they represent a moving mass equal to about three hundred thousand Mississippi rivers. Yet they are still far inferior to the prodigious volume of relatively tepid water spread over the surface of the North Atlantic and Arctic oceans. In fact, the Gulf Stream, issuing from Florida Strait, supplies only a small portion of those tepid waters whose influence is felt as far east as Nova Zembla. The main supply comes from that portion of the equatorial current which is deflected north by the barrier of the West India Islands and is joined by the Gulf Stream south of the Bermudas.

Accompanying these currents are the great tropical trade-winds. They come from the vast expanse of the Atlantic, and blow with a steady velocity across the region —a boon to the inhabitants, without which life would be unendurable. They are laden with moisture, greater at certain seasons than others, which is precipitated against the higher protuberances of the land. They chop the surface of the Caribbean into a million whitecaps and ripples, giving that sea a rough surface quite different from the glassy waters of the Gulf, the latter being partially protected from these winds by the Antilles and the Yucatan peninsula. They also create a superb surf against the windward side of the tropical islands and mainland. Their benign influence spreads even to our own country, for they make the south breezes which in summer blow across Texas and the Great Plains region. There is no more delightful sensation than to feel the cooling touches or drink in the exhilarating purity of this moving air-current, especially along the windward or Atlantic side of the eastern islands, where it moves with a steady velocity stronger than a breeze and milder than a gale. In those portions of the islands entirely or partially protected by land heights, this wind is broken, and counter-currents set in. For instance, on the leeward or Caribbean side of the Windward Islands, cut off from the Atlantic by mountains rising three thousand feet or more, it is often sultry, and the winds, representing eddies in the greater current, come only at certain times of day. On the south coast of Jamaica, at Kingston, the trade-wind blows only between the daylight hours of ten and four. Coming as it does in the warm midday, it is a great relief, and is called by the inhabitants "the doctor." The relation of these winds to the situation of land is an important factor in tropical America, and influences the conditions of vegetation, health, rainfall, and other phenomena. Its importance explains the frequency with which the terms "leeward" and "windward" are used in the West Indian nomenclature.

The great southward-flowing air-currents from the United States, which bring our blizzards in winter, sometimes invade the West Indies, and are there known as "northers." They extend to Panama and the Great Antilles, but barely, if at all, reach the Windward Islands. The absence of a breeze in the West Indies is ominous. Sometimes in these periods of atmospheric quiet the barometer falls rapidly, and in a few hours great hurricanes ensue. Few years pass without a disaster at one point or another of the normal storm-zone. Nearly all the islands have been more or less devastated by these visitations. Barbados, Jamaica, St. Thomas, Guadeloupe, and Cuba especially have suffered severely. Houses have been uprooted like trees, fortresses demolished, ships carried far inland, plantations strewn with huge blocks, islands broken into reefs, and reefs piled up into islands. The "great hurricane" of October 10, 1786, is said to have "leveled cities, wrecked fleets, and,

"'Amid the common woe,
Reconciled the French and English foe,'

who were preparing to cut each other's throats." The hurricanes are said to occur only at the end of summer or beginning of autumn, when the heated surface of South America attracts the cooler and denser air of the northern continent. But although most frequent in August, and generally prevalent between July and October, such disturbances have also been recorded at other times.

These winds and currents from the Atlantic Ocean are neither hot in summer nor cold in winter. Their temperature, ameliorated by the cooler waters, mitigates the tropical radiation of summer and warms the northern blasts of winter, and is nearly the same the year round. The intense extremes of our own country are unknown, the thermometer never falling to the cold characteristic of nearly all the United States, nor rising to the intense heat of our summers. Hence throughout the West Indies the temperature is equable, normally between 70° and 80° at sea-level, and varying above or below this only in limited localities where land barriers cut off the winds, or upon the mountain summits. Were it not for the humidity of the atmosphere, the general temperature of the islands would be most enjoyable.

Another feature of the American Mediterranean is its wonderful submarine topography. This is so intimately connected with the topography of the land that the relations of the latter cannot be understood without a brief description of it. Beneath the blue waters is a configuration which, if it could be seen, would be as picturesque in relief as the Alps or Himalayas. Nowhere can such contrasts of relief be found within short distances. Some deeps vie in profundity with the altitudes of the near-by Andes, so that between the great Brownson Deep of twenty-five thousand feet to the summit of Chimborazo there is a difference in altitude of nearly ten miles.

The deepest cavity yet revealed in the Atlantic occurs at a point due north of Porto Rico, where the soundings record a depth of forty-five hundred fathoms. This is known as the Brownson Deep. Some of the depressions, like the Bartlett Deep, are narrow troughs, only a few miles in width, but hundreds of miles in length, three miles in depth, and bordered by steep precipices and escarpments. Others, like the Sigsbee Deep, in the Gulf of Mexico,[1] are great circular basins. There are long ridges beneath the waters, which, if elevated, would stand up like islands of to-day, and, as has been shown, have an intimate relation to the mountains of the land. Again, vast areas are underlain by shallow banks less than five hundred feet deep and often approaching the surface of the water, like that extending from Jamaica to Honduras and the Bahama banks. The greater islands and the mainlands are bordered in places by submerged shelves.

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[1] These three deeps, named after naval commanders of to-day, were bestowed by Agassiz in commemoration of the part which they took in surveying them.

From a physiographic point of view all the islands are the upward-projecting tops of a varied configuration which has its greatest relief beneath the sea, and which is of no less interest to the student of physiography than the great irregularities of the land. The islands which form the outer rampart of the Caribbean Sea rise from submerged ridges. The Antilles, connected by submerged sills, none of which exceeds five hundred fathoms, also project upward from vast foundations beneath the water. These features strongly suggest the fact that the islands as we see them to-day were once much more extensive lands.

The systematic exploration of these depths began in 1872 on the west side of Florida, under the direction of the American officers attached to the Coast Survey. Howell, Pourtàles, Alexander Agassiz, Bartlett, Sigsbee, Baird, and others have studied the bottoms. Not only have careful soundings been everywhere taken in order to map out the relief, but the most sensitive instruments have been used to determine the varying temperature at different depths, the course of the upper and lower currents, their saline properties, thermometric deviation, and other features.

Special attention has also been paid to the marine fauna down to the darkest recesses of the abyss, and many startling discoveries have been made, which open marvelous vistas into the past evolution of life on the globe. It was formerly supposed that the marine fauna was confined to the surface or shallow waters, and that the stillness of death reigned in the gloomy recesses of the deep. But the dredgings of the *Blake* and other exploring vessels in depths of over two thousand fathoms have already increased the number of animal forms—the crustacean, for instance—from twenty to one hundred and fifty species, grouped under forty new genera. The deep waters are also found to be extremely rich in forms resembling the fossils of former geological epochs, and to comprise numerous phosphorescent species. In certain places the marine bed is covered with living organisms; in the channels of the Windward Islands, near Guadeloupe, and the Saintes, and about St. Vincent and Barbados, dense forests of pentacrini undulate on the bottom like aquatic plants.

The purely biologic aspect of the sea life is not more wonderful than the architectural work that deep-sea animals and the millions of mollusks and coral polyps which inhabit the shallower waters and banks perform. These extract the lime carried in solution by the translucent sea-water, and convert it into the shells and corals which are so large a part of the beach sands, and the glaring white limestones which are conspicuous features in the West Indian Islands and the Florida and Yucatan peninsulas.

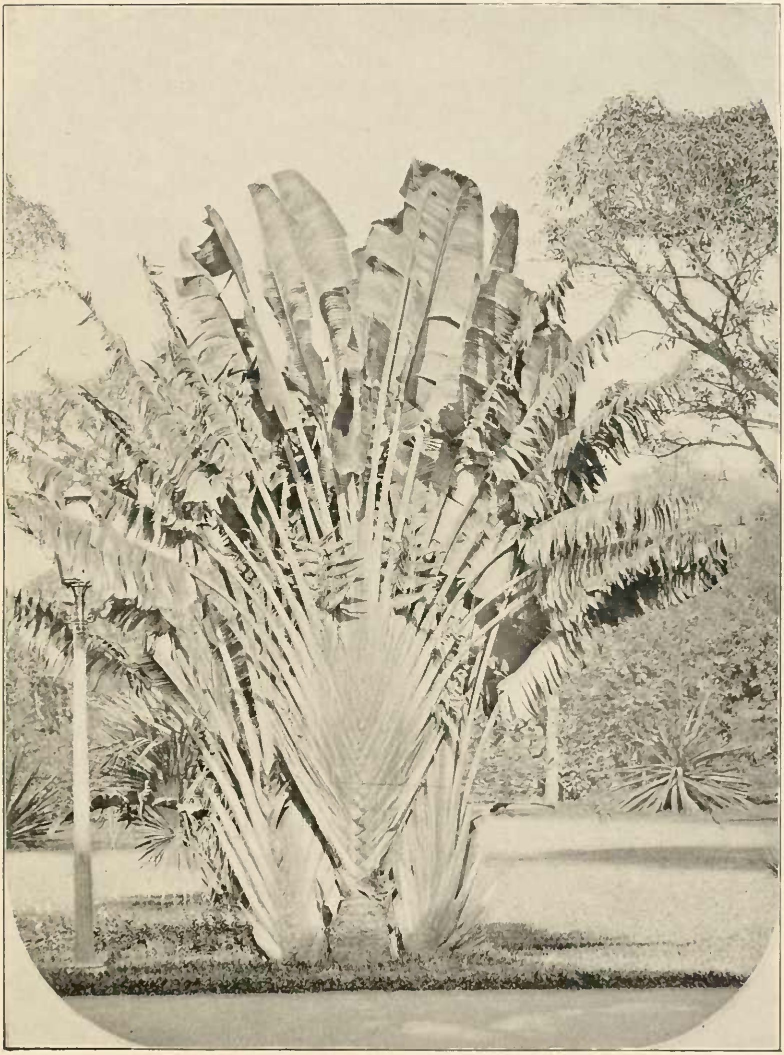
The embryonic coral polyp is a free swimmer in the sea, which in a second stage of its life-history becomes permanently fixed on the banks, and devotes the remainder of its life to extracting calcium carbonate from the sea and assimilating it into its stony skeleton. It will thrive only on shallow banks less than one hundred fathoms deep, and where the temperature and clearness of the water are to its liking. Once domiciled, it grows upward, and, dying, leaves a huge skeleton of stone, upon which other polyps become fixed and add their sum to the mass. Gradually the growth reaches the surface of the waters, when the waves and winds disintegrate it into calcareous sand and soil upon which vegetation finds root. Thus the coral islands are born.

The coral-builders are at work over a vast range, which is estimated at one fourth of the marine surface of the region. To their incessant toil must be largely attributed the formation of much of the calcareous plateaus by which the Yucatan and Florida straits are contracted on both sides, as well as of those rocky ledges which are washed by high tides, and are revealed only by sandy dunes, such as the Salt Key, or by their fringe of mangroves, like some of the Florida Keys, and Anegada with its prolongation, the dreaded Horseshoe Reef, connecting it with the Virgin

Islands. More than half the Cuban seaboard, the various groups of the Bahamas, the eastern members of the Lesser Antilles, and the Bermudas are largely of coralline origin.

The muddy deposits in the central parts of the Gulf and of the Caribbean Sea are derived chiefly from the remains of pteropods. In other places the shells of foraminifers make up the bottom. It is only around the interior margin of the Gulf of Mexico that silicious sands and other land debris brought down by rivers constitute the beach material with which we are familiar in the United States; and, great as this is in quantity, it seems insignificant in comparison with the vast amount of limestone which the lower forms of life are creating through organic agencies, and which, as we shall see, is the rock-making material of all the non-volcanic islands of the West Indies, and one of the conspicuous features which give them individuality of color, soil, and landscape.

The American Mediterranean finds a number of outlets across the submerged bridge separating its abysses from those of the Atlantic. Shipping may glide eastward out of the Caribbean into the Atlantic between any of the Windward Islands, but to go northward toward the United States it must beat through one of four widely separated gateways, which are of great strategic importance. These are the Anegada, Mona, and Windward passages and the Yucatan Channel. The Anegada Passage is the most eastern, threading its way between the region where the eastern Virgin Islands of the Antillean group meet those of the Windward chain. Through this passage there went for many years all the European ships passing into and out of the Caribbean Sea, making St. Thomas the commercial capital of the West Indies. The Mona Passage separates the island of Porto Rico from that of Santo Domingo, and, being out of the lines of travel, is less frequented than the others. The Windward Passage, between Santo Domingo and Cuba, and its continuation as the Jamaican Channel between the western cape of Santo Domingo and Jamaica,



TRAVELER'S PALM, GARDEN, ST. PIERRE,
MARTINIQUE—NOT INDIGENOUS

is the most used commercially of all the passages, and of the greatest strategic importance, inasmuch as trade from New York to the south coast of the islands mentioned, the isthmus, and the western coast of northern South America must pass through it. The Yucatan Channel separates Cuba from the Central American mainland, and, except the Strait of Florida, is the only entrance into the Gulf of Mexico.

Of these passages into the American Caribbean the island of Cuba guards three of the most important, and this fact gives it precedence in strategic importance.

CHAPTER III

CLASSIFICATION OF THE WEST INDIAN ISLANDS

Their number, area, and populations. Antithetic nature of their origin, configuration, and resources. Classification into groups of similar type. The Great Antilles. The Bahamas. The Caribbean chain. The South American islands of the Trinidad type. Reefs and keys. Their political organization.

NOT counting the thousands of uninhabited islets constituting the Florida Keys, the Bahamas, the coral reefs bordering Cuba and in the western Caribbean, or the five hundred rocky projections of the Grenadines, there are forty inhabited islands in the West Indies, varying in area from less than five square miles to the size of New York State. The area and population of these are shown in the following table.

Table showing Area and Population of the West Indies

	AREA, SQUARE MILES.	POPULATION.
Bahamas	5,450	54,000
Great Antilles		
Cuba	45,000	1,631,687
Santo Domingo	28,249	610,000
Jamaica	4,218	639,491
Porto Rico	3,550	806,708
Total Great Antilles	86,467	3,687,886
Virgin Islands		
St. Croix	74	18,430
St. Thomas	23	32,786
St. John	21	950

	AREA, SQUARE MILES.	POPULATION.
VIRGIN ISLANDS—*Continued*		
Anegada	20	......
Tortola	58	5,000
Virgin Gorda	176	......
Total Virgin Islands	372	57,166
CARIBBEE ISLANDS (OUTER CHAIN)		
Sombrero	....	......
Anguilla	35	3,699
St. Martin	38	3,724
St. Bartholomew	5	2,650
Barbuda	62	639
Antigua	108	36,819
Désirade	10	1,400
Maria Galante	65	13,850
Total Outer Chain	323	62,781
CARIBBEE ISLANDS (INNER CHAIN)		
Santa Cruz	74	18,430
Saba	5	2,065
St. Eustatius	8	1,613
St. Christopher	65	30,867
Nevis	70	13,087
Montserrat	32	11,762
Guadeloupe and dependencies	600	167,000
Dominica	290	26,841
Martinique	400	187,692
St. Lucia	245	46,671
St. Vincent	122	41,054
Grenadines Grenada	120	60,367
Total Inner Chain	2,031	607,449
Total Caribbee Islands	2,354	670,230
BARBADOS	166	189,000
SOUTH AMERICAN ISLANDS		
Tobago	114	20,463
Trinidad	1,754	248,804
Buen Ayre	95	4,399
Curaçao	210	28,187
Margarita and small islands	470	40,000
Total South American Islands	2,643	341,853

These islands, far from being alike in natural features and economic possibilities, present great extremes. Some are low, flat rocks barely peeping above the sea; others gigantic peaks rising straight to the clouds, which perpetually envelop their summits; others are combinations of flat and rugose types. Some present every feature of relief configuration that can be found within a continental area—mountains, plains, valleys, lakes; some are made up entirely of glaring white coral sand or reef rock; others are entirely composed of black volcanic rock, and still others are a combination of many kinds of rocks. Many are as arid as a Western desert and void of running streams, and others have a most fertile soil, cut by a hundred picturesque streams of living water, and bathed in perpetual mist and daily rainfall. Some are bordered only with the fringing, salt-water plants or covered with thorny, coriaceous vegetation; others are a tangled mass of palms, ferns, and thousands of delicate, moisture-loving plants which overwhelm the beholder with their luxuriance and verdancy of color. Some are without human habitants; others are among the most densely populated portions of the world.

The differences in natural character between groups of islands have an important bearing upon habitation and economic possibilities. Each group is so different from the others that, were they not in close geographic proximity, they would in no manner be considered related. The diverse configuration produces climatic differences, and each kind of rock weathers into its peculiar soil. For example, the Bahamas are not adapted to growing sugar, or the Caribbee Islands to the raising of cattle; food-fish are not abundant off the Great Antilles, owing to the steep marine escarpments, while they thrive in the Bahamas and on the leeward side of the Caribbee Islands; some of these islands, through possibilities of a diversified agriculture and hygienic condition, are adapted to higher civilization, and others, either through sterility or ruggedness of relief, are capable of supporting only inferior races.

These various islands are classifiable, by geographic position, geological composition, and economic possibilities, into several great groups, the principal of which are the Bahamas, the Antilles, the Windward or Caribbee Islands, the Trinidad-Tobago group, and the keys or coral reefs.

Of these the Great Antilles are by far the most fertile, diversified, and habitable, presenting greater extremes of hypsometric, climatic, and hydrographic features than all the others. Their configuration and geological features are of a diversified type, suggestive of continental rather than insular conditions, while the other groups of West Indian Islands are monotypic in character. Several of the Great Antilles exceed in area all the other groups. These, extending for twelve hundred miles in an east-and-west line, between longitudes 65° and 85° W., are the large islands of Porto Rico, Santo Domingo, Cuba, and Jamaica. The Virgin archipelago, extending eastward from Porto Rico to the Anegada Passage,—a group which might be confused with the Caribbean chain,—is Antillean in its natural features. These include Crab, Culebra, Culebrita, St. Thomas, St. John, Tortola, Virgin Gorda, and Anegada, the largest of which is Crab Island, with an area of less than twenty-five square miles.

The Great Antilles and the shallow passages between them constitute a barrier separating the Gulf and Caribbean basins, and are practically within the area of the American Mediterranean, while the Bahamas and Lesser Antilles make its outer rim.

The eastern islands are composed of the Bahamas and Lesser Antilles, which in natural features differ radically from each other. The Bahamas, to the north of the Great Antilles, rise from the shallow, submerged platform of the great submarine shelf which borders the North American continent from Massachusetts to the eastern end of the Great Antilles. They are all monotypic, consisting of low heaps of calcareous shells and coral sand, which have been piled up above a submerged platform by wind and wave.

According to Bacot, the Bahamas, excluding the Caicos and Turks groups, comprise 690 islands and islets and 2387 rocks or separate reefs, with a total area of 5600 square miles. Including the Caicos and Turks, which belong to the group, the actual number can scarcely be less than 3200, of which only 31 were inhabited in 1890, with a total population of 54,000. They stretch northwest and southeast between Florida and Santo Domingo for a distance of 780 miles. They rise from a shallow submarine platform separated from Santo Domingo and Cuba by the Old Bahama Channel, twelve thousand feet deep. This platform may represent the planed-down summit of a submarine ridge akin to the Antillean uplifts. Unlike the Antilles, the Bahamas are of low relief, often barely projecting their heads above the water, and their wind-blown sand-dunes nowhere rise to an altitude greater than one hundred feet.

The Caribbee Islands, which close the eastern gate of the Caribbean, are as different from the Bahamas as are the Bahamas from the Great Antilles, although they too are the projecting tip of a submerged ridge which has its greater extent beneath the water. They extend in a gentle curve from the Anegada Passage of Porto Rico southward to Trinidad, and include twenty-one islands besides the Grenadines. The latter include several hundred distinct islets, often merely heads of rock rising above the sea, and extending sixty miles in the general axis of the chain, between St. Vincent and Grenada. Barbados, about one hundred miles east of the circle, and Aves or Bird Island, about two hundred miles west, are included by some writers in the Caribbean chain, but we shall not so consider them.

The Caribbean chain in the northern half of its extent consists of a double row of islands. The inner circle, which more completely spans the distance between the Great Antilles and South America, is the main chain, and the outer circle is made up of secondary and dependent features.

Those of the main chain, including the islands of Saba, St. Eustatius, St. Christopher, Nevis, Montserrat, Guadeloupe, Dominica, Martinique, St. Lucia, St. Vincent, Grenadines, Grenada, are volcanic heaps, of weird insular forms, rising precipitously above the sea, attaining a height of 4450 feet in Martinique, clad to the very top in vegetation, and usually clouded in mist. They are composed entirely of old volcanic material, and from the richness of their vegetation and the blackness of their rock present a dark and restful landscape even under the tropical sun. The outer circlet of islands, including Sombrero, Anguilla, St. Martin, St. Bartholomew, Barbuda, Antigua, Désirade, and Maria Galante, with the exception of Antigua, which is partially volcanic, are islets of white limestone and coral-reef rock, rising nowhere over two hundred feet above the sea, and resembling in color the Bahamas. They rise from a submerged slope extending oceanward from the inner chain.

The fourth type of tropical American islands borders the north coast of South America, and includes the islands of Tobago, Trinidad, Margarita, Blanca, Las Roques, Buen Ayre, Curaçao, and other small islands. These were once portions of the South American continent, and have been severed from the mother-land by the corrosive effects of the equatorial currents which here break into the Caribbean. Barbados perhaps is related to the latter group, but it has a peculiar construction which justifies placing it in a class by itself. In remote geologic ages it was probably the end of a peninsula projecting from the South American mainland.

The fifth and last class of West Indies consists of coral reefs which have been slightly elevated above the sea. These occur in many places, either singly or in clusters, and by location are not classifiable into a geographic group, although they are most numerous in the Honduras Sea, in the western part of the Caribbean.

Islands of this and kindred character—in which, for present purposes, may be included mangrove islets and other lands not strictly reef rock, but dependent upon shallow banks for a foundation—border the end of Florida, Cuba, and the Windward side of the Caribbee Islands.

In addition to islands which can thus be grouped, there are many standing alone, like Barbados, Aves, Navassa, and Swan Island, which seem for the present to defy any system of classification. There are also many islands and islets off the Central American coast, which may mostly be considered to be continental, so far as their natural relations are concerned.

Only one of the smaller solitary islets of the American Mediterranean is volcanic. This is the Old Providence group, in latitude 13° N., standing in the western Caribbean, about one hundred and fifty miles off the coast of Nicaragua.

In general it may be stated that of these groups the Great Antilles and South American islands are continental in the diversity of their configuration, the Bahamas and keys and solitary islets are composed of organic skeletal debris, and the Caribbee Islands are of old volcanic origin.

Perhaps no equal area of the world is distributed among the flags of so many nations. Only one island, Santo Domingo, possesses free and independent governments. The remainder are the property of many nationalities. The political organizations of the whole are as follows: independent: Santo Domingo, composed of two republics; Spanish islands: Cuba, Isle of Pines, U.S. Porto Rico, Vieques, Mona, Culebra; British islands: Bermudas, Bahamas, Jamaica, Turks, St. Christopher, Nevis, Antigua, Dominica,

COCOANUT-PALMS, PLUMB POINT LIGHTHOUSE, JAMAICA

BANIAN-TREE, BRIDGETOWN, BARBADOS

St. Vincent, Grenada and Grenadines, Barbados, Virgin Islands, Montserrat, St. Lucia; French islands: St. Bartholomew, Guadeloupe, Martinique; Dutch islands: St. Eustatius, Saba, Curaçao, Buen Ayre, Aruba; French and Dutch: St. Martin; Danish islands: St. Thomas, St. John, Santa Cruz.

Two islands are divided in government. Santo Domingo consists of two independent republics, Haiti and Santo Domingo. Seventeen square miles of the little island of St. Martin belong to Holland, and twenty-one square miles to France. Of the Spanish islands, Cuba is a dependent colony without local self-government; Porto Rico was an integral part of Spain, participating in the rights of the mother-country, until recently, when, in 1897, it was granted a system of autonomy.

The French islands of Maria Galante, Désirade, the Siantes, and part of St. Martin, with Guadeloupe, form an administrative colony, having a representative governor from France, aided by local representative assistants. Martinique is similarly organized.

The administration of the British islands is divided among several distinct and colonial governments, independent of one another, each with local representative assemblies and a governor and colonial secretary appointed by the crown. The Bahamas constitute one of these, the seat of administration being located at Nassau. Jamaica, with Turks Island and the Caicos and Cayman Islands attached for administrative purposes, is another.

St. Christopher, Nevis, Antigua, Barbuda, Montserrat, Redonda, Dominica, and the British Virgin Islands constitute the English Leeward Island administrative group, with the seat of government at St. John, Antigua. St. Lucia, which is French in its language, manners, and religion, is a British dependency, which was until recently governed as a conquered possession by a quasi-military governor with the aid of a council. It is, however, in some measure dependent upon the governor of Barbados. St.

Vincent, Grenada, and the Grenadines constitute the Caribbee Island government, with a capital at Kingstown, St. Vincent. Trinidad, with Tobago, constitutes another separate colony, and Barbados still another. In all there are six British colonial groups in the West Indies, without any confederated relations to one another.

The widely separated Dutch islands are all parts of the colony of Curaçao, with its seat of government on the island of that name. The administration is composed of a governor and three other colonial officers nominated by the crown, and an elective colonial council.

The islands of St. Croix, St. John, and St. Thomas constitute a crown colony of Denmark. The island of Navassa, between Haiti and Jamaica, is claimed by its proprietors to belong to the United States, but the latter government has not acknowledged any proprietary right in it.

Many of the islets and reefs, such as Aves, Roncador, etc., are beyond the pale of any government. This may be both on account of their general worthlessness to civilization, and because ownership would require expensive responsibility, such as placing lights for the protection of navigation.

CHAPTER IV

THE GREAT ANTILLES

Their individuality. Distinctness of physical characters from those of the United States. Continental diversity of their configuration as compared with the monotypic character of the other islands. The Antillean mountain system. Variety of resources. Total population. Diversity of social conditions presented in the four chief islands.

IN their climate and vegetation, as in their topographic features and geologic history, the Great Antilles have no affinities with conditions with which we are familiar in the United States. Their whole aspect is tropical, yet they possess so many unique individual features, differing from those of other tropical lands, that they belong in a class entirely by themselves. The causes of this individuality are involved in a peculiar and complicated geologic history, which can be dwelt upon here only to the extent of stating that it has produced certain peculiarities of configuration and given origin to formations which weather into soils of unusual productiveness.

Collectively the Great Antilles consist of a disconnected chain of mountains (the Antillean system) protruding above the sea and having an east-west trend directly transverse to that of the axial continental Cordilleras. The highest peaks of this system in Haiti, Cuba, and Jamaica are 11,000, 8000, and 7000 feet respectively. This mountain system, as a whole, is one of the most marvelous works of earthly architecture. Its peculiar origin and history are more fully explained in a later chapter of this book. Its complicated geologic history, and the fact that a large portion of its extent is now submerged beneath the ocean, are not the least interesting of its many features.

The Antillean uplift, as a whole, may be compared to an inverted, elongated canoe, the highest and central part of which is in the region adjacent to the Windward Passage. Thus it is that the higher peaks occur in Haiti, eastern Cuba, and eastern Jamaica, while the arching crest-line descends toward the western part of the two latter islands, and on the east toward Porto Rico, where the highest summit is only 3680 feet, finally disappearing as the Virgin Islands, where, in St. Thomas, the summit is 1560 feet.

The higher mountains are composed of non-calcareous clay and conglomerate, largely the debris of unknown lands of pre-Tertiary time, which, with the exception of a few restricted points, were buried, during a profound subsidence in early Tertiary time, beneath a vast accumulation of calcareous oceanic sediments. The latter now compose the white limestones which constitute the chief formations of the islands, and which were, together with the preceding formations, elevated into their present position at the close of the Tertiary period. The mountains are irregularly flanked below 2000 feet by horizontal benches, or terraces, of this limestone, which are the result of regional elevations and base-leveling after the last period of mountain-making. There are also intrusions of old igneous rocks,—granitoid, porphyritic, and basaltic,—but these are of a more ancient character than the volcanic rocks of the Windward chain, and nowhere are there craters or other traces of recent volcanic vents. The mountains above 2000 feet, composed of the older non-calcareous formations, and the lower plains and bordering plateaus of limestone, result in producing the two distinct and contrasting types of calcareous and non-calcareous soils throughout the Great Antilles.

Although a more or less continuous chain of sierras, which may be called the mother range, extends in an axial line from St. Thomas through Porto Rico, Santo Domingo, the northwest cape of Haiti, the Sierra Maestra range of Cuba, and the submerged Misterosa Ridge of the Caribbean, for a distance of a thousand miles, the Antillean Mountains are not continuous crests like our Appalachians, but are composed of many short overlapping ranges, presenting at first sight a serrated appearance similar to the Alps and Pyrenees, with this difference, that they are not covered with snow.

The island of Santo Domingo is the center and culmination of the entire Antillean uplift. The highest of its peaks, Monte Tina, just south of the center of the island, reaches the respectable altitude of nearly 12,000 feet. The most continuous Santo Domingoan range, the Sierra de Cibao, extends in an east-and-west direction through the center of the republic, and is flanked on the north and south coasts by several short but lofty lateral ranges. This sierra has a south-southeast and north-northwest trend, and culminates in the Pico del Yaqui, 9500 feet high, while many other peaks attain altitudes of 7350 feet. Near the western extremity of this range rises the colossal Nalgo de Maco, whose lofty head, 7000 to 8000 feet, overtops all the mountains in its vicinity.

In the republic of Haiti the occidental continuation of the Antillean uplifts begins to divide into a number of spreading branches pointing toward the Central American coast. This differentiation is first indicated in the two long peninsulas of Haiti, the northern of which extends toward Cuba and the southern toward Jamaica. The northern branch is the continuation of the main or axial ranges of the general system, and is represented in Cuba by the lofty summits of Sierra Maestra, bordering the Santiago coast of the east end of the island. This mountainous crest apparently ceases at Cape Cruz, but in reality it continues westward for eight degrees of longitude, or over five hundred miles, as the Misterosa Bank a wonderful submarine mountain ridge, which, although barely reaching the surface of the water, precipitously rises 18,000 feet above the bottom of the sea.

The remainder and main body of Cuba, lying north of the Sierra Maestra, is the most northern of the three western branches of the Antilles, and this is of quite different structure from the others.

The southern of the Haitian peninsulas stretches out toward Jamaica, but ends in a submarine bank just northeast of that island. Still south of this the Blue Mountains of Jamaica, rising to 7325 feet, trend in a north-of-west direction, and make the most southern of the land ranges of the Great Antillean uplift. Vast areas of the Pedro, Rosalind, and Roncador banks, in the western Caribbean, represent still other groups.

Few people realize the intense rugosity of these mountains. When considered relatively to the plain from which they rise, their altitudes are enormous, and they exceed any heights of Europe or North America, and, if their submerged slopes be added, they are among the most lofty of the world. The total altitude above the sea of the Rocky Mountains is greater, but their true altitudes are usually overstated by nearly one half, for they rise from a plain which has already attained an altitude of 5000 to 7000 feet, while the Antillean ranges rise straight from the sea. Furthermore, the slopes of the Antillean Mountains continue downward below the watery horizon for enormous depths. The slopes of Porto Rico, for instance, not quite 4000 feet of which are exposed above the sea, descend on the northern side of that island to a depth of 24,000 feet, giving a total declivity of more than five miles. In order properly to appreciate the height of the Santo Domingo mountains we must also add to the 11,000 feet projecting above the sea 12,000 feet of precipitous submarine slopes on the north and 18,000 feet on the south. The vertical slope of the Sierra Maestra, 8000 feet of which are exposed above the sea, continues downward for 18,000 feet beneath the waters lying between Cuba and Jamaica, giving a total relief of 26,000 feet. In fact, the configuration of these ranges is the most precipitous of the known world, exceeding that of the Himalayas, which would be comparable with them were their bases surrounded by oceanic waters to a depth of three to five miles.

Another peculiarity of these mountains is the fact that they are not made up of untillable and barren rocks, like most other great ranges of the world, but are largely composed of unconsolidated clays and pebble, which yield a wealth of vegetal products to their very summits. These higher summits, though differing in origin, are similar in composition to the mantle of glacial soils which constitutes the tillable lands of the northern United States. They are the fruit- and coffee-lands of unlimited possibilities.

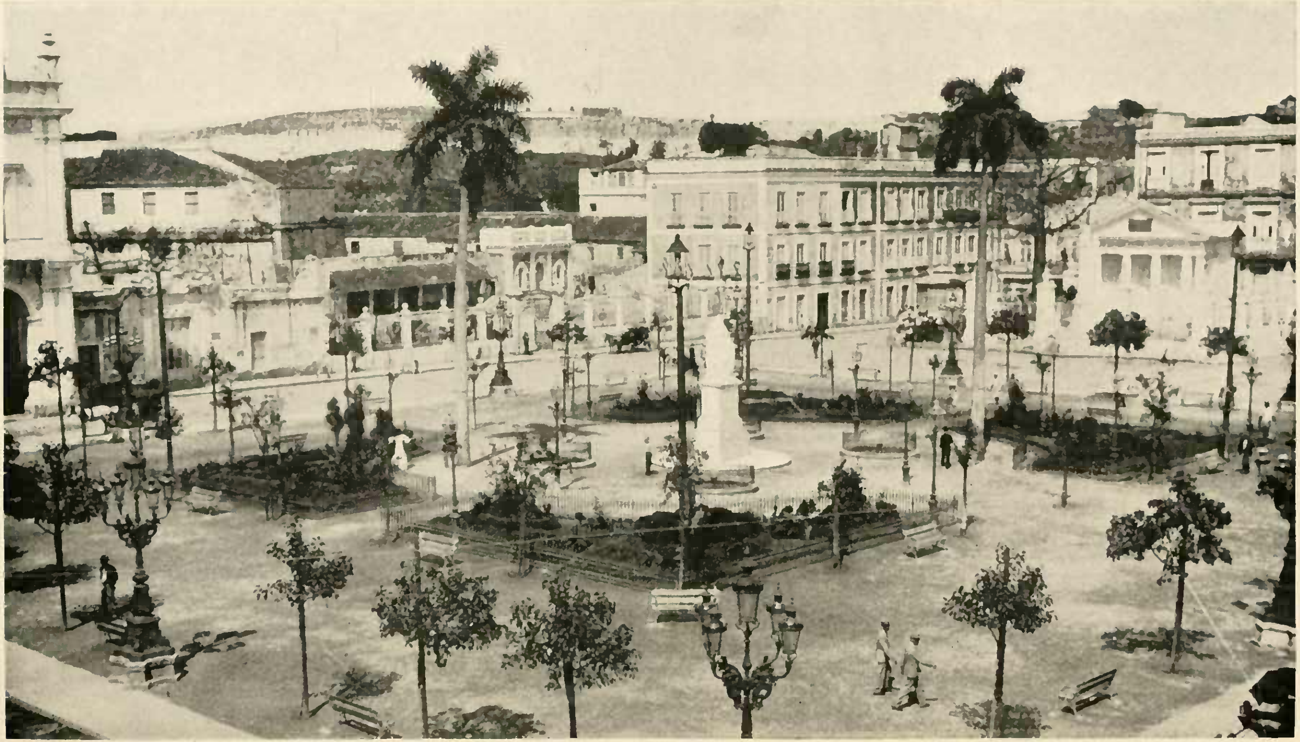
The Antilles are not exclusively mountainous. There are numerous valleys, plains, and plateaus, often of wide extent and great fertility, which will be further mentioned in our descriptions of the various islands. As a rule, they are densely wooded and copiously watered to the very summits of the mountains. Many of the streams are rivers of great beauty, and in a few instances are navigable for short distances. Some of these, like the Cauto and Sagua of Cuba, and the Yaqui, Neyba, and Artibonite of Santo Domingo, are of great length and volume.

The seaboard of the Antilles is in some respects quite different from that of the remainder of the islands, being characterized, in general, by an abundance of good harbors, affording excellent anchorage, which are lacking in many of the smaller islands. The character of the coast is variable. Large stretches are composed of a low shelf of elevated reef rock, often as hard as adamant, and standing less than twenty feet above the sea, known as *seborucco*, which extends back a few yards against a rugged back-coast border; in other places the land border consists of high bluffs of limestone, with or without a few feet of shelving beach at its base. Near the Windward Passage there is a series of these bluffs rising 600 feet in terrace-like arrangement. Again, there are small stretches of swamp-land, and alluvial plains at the mouths of rivers.

The resources of the Antilles are also more varied than those of the other islands, for they not only produce the chief staple, sugar, in great quantities, but yield abundant crops of coffee, cocoa, exportable fruits, cattle, and food-stuffs.

The only important metallic mineral resources of the West Indies are found in the vicinity of the Antillean chain. These are iron, manganese, gold, and copper.

The total population of the Great Antilles is nearly 3,700,000 people, threefold that of all the other West Indian Islands combined. This population is diverse in race and color, and has distinct local peculiarities, which will be treated elsewhere. Yet the people of the four chief Antillean Islands have no common traits, and exhibit remarkable differences in government and civilization. It is strange to see lands belonging to the same geographic group and equally endowed by nature develop every antithesis of social and industrial life, and to observe the influence of former ownership and present government upon the races which have been transplanted there. In Jamaica, under the beneficent rule of the English government, the negro is provided with the implements and improvements of the highest civilization, and imitates in his domestic life the rural customs of Great Britain. In Santo Domingo a free mulatto has developed an entirely different character. In Haiti, as black in civilization as in the color of its inhabitants, is portrayed the degradation which a savage race may retain, without civilizing influences, although centuries have lapsed since it was imported across the sea. In Cuba may be seen a white civilization which has developed in place of a most corrupt and despotic colonial administration; while Porto Rico shows how closely a transplanted European people, trained in the political and social conditions of the mother-country, may repeat the social status of the latter.



PLAZA IN FRONT OF CAPTAIN-GENERAL'S PALACE, HAVANA

CHAPTER V

THE ISLAND OF CUBA

Physical features. Situation, commercial and strategic position. Outlines, dimensions, area. The configuration. The coast and littoral. Abundance of harbors. The bordering keys. The interior mountain ranges. The plains of Cuba. The *cuchillas* of the east. The terraces of Guantanamo. Valleys and depressions. Rivers, lakes, and swamps. Caves and scenic features.

CUBA, the most western and largest of the four Great Antilles, is the fairest, most fertile, and most diversified of the tropical islands; its economic development during four centuries of European occupation has fully justified the title, "The Pearl of the Antilles," first given to it by Columbus, although its capital city may no longer uphold the motto of its coat of arms, "The Key of the New World." It has but a small proportion of untillable declivities and rocky areas, such as are found in New England; no barren fields of volcanic lava, such as occur in the Central American lands; no arid areas, like those which make up so large a proportion of Mexico and the western half of the United States; no stretches of sterile, sandy lands, like those of Florida and other coastal Southern States. Its proportion of swamp-lands is less than that of the average American seaboard State. The whole island is covered with rich soils,—fertile, calcareous loams,—which, under constant humidity, yield in abundance every form of useful vegetation of the tropical and temperate climes. The configuration and geological formations are diversified; there is a variety of economic resources, both agricultural and mineral, convenient to an extensive littoral, with numerous harbors affording excellent anchorage.

Its essential geographic features are as follows: Area, including 1300 adjacent keys, 45,000 square miles,—slightly less than that of the State of New York,—of which ten per cent. is cultivated, four per cent. forest-land, and the remainder, for the most part, unreclaimed wilderness. Its length is nearly seven times that of Long Island, and stretches between the longitudes of New York and Cincinnati—a distance of 720 miles. Its width is everywhere less than 100 miles. As regards diversity of relief, its eastern end is mountainous, with summits standing high above the adjacent sea; its middle portion is wide, consisting of gently sloping plains, which form a continuous field of sugar-cane, well drained, high above the sea, and broken here and there by low, forest-clad hills; and its western third is a picturesque region of mountains, with fertile slopes and valleys, of different structure and less altitude than those of the east. It is in this last district only that the aromatic tobaccos which have made the island famous are grown. Over the whole is a mantle of tender vegetation, rich in every hue that a flora of more than three thousand species can give, and kept green by mists and gentle rains. Indenting the rock-bound coasts are a hundred pouch-shaped harbors, such as are but rarely found in the other islands and shores of the American Mediterranean, and resembling St. Lucia, for which England gave up the rich islands of Martinique and Guadeloupe, under the treaty of Paris.

In area, in natural resources, in the number and character of its inhabitants, in strategic position as regards proximity to the American and Mexican seaboards, Cuba is by far the most important of the Great Antilles. It is very near the center of the great American Mediterranean, separating the Gulf of Mexico from the Caribbean Sea, and in close proximity to our Southern seaboard, the coast of Mexico, the Bahamas, Haiti, Jamaica, Central America, the isthmus, and the coast of South America.

The island commands three important maritime gateways: the Strait of Florida, leading from the Atlantic Ocean into the Gulf of Mexico; the Windward Passage, leading from the Atlantic into the Caribbean Sea; and the Yucatan Channel, connecting the Caribbean Sea and the Gulf. The first and last of these completely command the Gulf of Mexico. It is less than 96½ miles from Key West to the north coast of Cuba. From the east end of the island Haiti and Jamaica are visible, 54 and 85 miles distant respectively. From the western cape (San Antonio) to Yucatan the distance is 130 miles.

The outline of the island, commonly compared by the Spaniards to a bird's tongue, also resembles a great hammer-headed shark, the head of which forms the straight, south coast of the east end of the island, from which the sinuous body extends westward. This analogy is made still more striking by two long, finlike strings of keys, or islets, which extend backward along the opposite coasts, parallel to the main body of the island.

The longer axis of the island extends from the seventy-fourth to the eighty-fifth meridian, while its latitude, between 19° 40′ and 23° 33′ N., embraces nearly four degrees. Its length, following an axial line drawn through its center from Cape Maysi to Cape San Antonio, is 730 miles. Its width varies from 90 miles in the east to less than 20 miles in the longitude of Havana. Cape Maysi, on the east, lies directly south of New York, and Cape San Antonio, on the west, is situated nearly south of Cincinnati.

At the outset the reader should dispossess his mind of any preconceived idea that the island of Cuba is in any sense a physical unit. On the contrary, it presents a diversity of topographic, climatic, and cultural features, which, as distributed, divide the island into at least three distinct natural provinces, for convenience termed the eastern, central, and western regions.

No accurate trigonometric surveys have been made of the island and its bordering islets, including 570 keys adjacent to the north coast and 730 to the south, or of the Isle of Pines, a large and important dependency. Nearly all existing geographic data have been based upon a large map compiled by Pichardo, engraved in Barcelona, which was a compilation of local surveys of various and doubtful degrees of accuracy. The area of the main island has been estimated at from 40,000 to 43,000 square miles, that of the Isle of Pines at 1214, and that of all the keys combined at 1350. Some of the larger keys, like Romano, on the north side, are 140 square miles in extent. Reclus estimates the total at 45,883 square miles, an area nearly one fourth the size of Spain.

The distinct types of relief include regions of high mountains, low hills, dissected plateaus, level plains, intermontane valleys, and coastal swamps. With the exception of a strip of the south-central coast, the island, as a whole, stands well above the sea, is thoroughly drained, and presents a rugged aspect when viewed from the sea. About one fourth the total area is mountainous, three fifths are rolling plain, valleys, and gentle arable slopes, and the remainder is swampy.

The coast of Cuba is very extensive, measuring, without its meanderings, nearly 2000 miles. On Pichardo's map the coast-line, with all its embayments and including the islets, is over 6800 miles. On all sides, except the south-central and where indented by pouch-like harbors, the coast is abrupt, and stands above the sea as if the waters of the latter were rapidly planing away what had once been a more extensive land. In many places the immediate coast-line is a narrow bench of elevated reef rock, or *seborucco*, a few yards wide and standing about fifteen feet above the sea, between the higher bluffs and the water. The island border on the north presents a low cliff topography, with a horizontal sky-line from Matanzas westward, gradually decreasing from five hundred feet at Matanzas to one hundred feet on the west. The coast of the east end is abrupt and rugged, presenting both on the north and south sides a series of remarkable terraces, rising in stair-like arrangement to six hundred feet or more, representing successive pauses or stages in the elevation of the island above the sea, and constituting most striking scenic features. West of Guantanamo to Cape Cruz the precipitous Sierra Maestra rises immediately behind and above these terraces. The south coast from Cape Cruz to Cape San Antonio, with the exception of a brief stretch between Trinidad and Cienfuegos, is generally low and marshy.

The littoral of the mainland is indented by numerous landlocked harbors of peculiar configuration, which are especially adapted for commerce and refuge. These are described under transportation and communication.

The keys adjacent to the middle third of the island, on both the north and south sides (the famous Jardines of Columbus), are mostly small coral or mangrove islets which have grown up from shallow, submerged platforms surrounding those parts of the island; in certain places they form barriers to the mainland. They are usually uninhabited, owing to the scarcity of potable waters. They constitute a formidable obstacle to navigation, except when guided by skilful pilotage, but, on the other hand, present many sheltered expanses within the outer line of breakers.

About one half the Cuban coast is bordered by these keys, which are largely old reef rock, the creations of the same coral-builders that may now be seen through the transparent waters still at work on the modern shallows, decking the rocks and sands with their graceful and many-colored tufts of animal foliage. On the north coast some of the keys are large enough to form extensive islets, uninhabited, except by fishermen in a few places where fresh water lodges in depressions, or wells up through the porous rocks. Thus the Cayos del Sabinal, Guajaba, Romano, and Cocos, separated by narrow channels, constitute almost a continuous outlying island 120 miles in length. Cayo Romano, the largest of these elevated reefs, has an estimated area of 140 square miles, and its flatness is relieved by three hills.

The chain of keys on the north side from the Sabinal to the Cocos reefs is so regular and pierced by such narrow channels that it might be regarded as a peninsula running parallel with the mainland; but farther west it is continued by a series of smaller reefs which are breached by wider openings and lie close to the shore. Including the western reefs and keys, this outer shore-line has a total length of over 300 miles. West of Havana other fringing reefs extend for about 140 miles from Bahia Honda to Cape San Antonio.

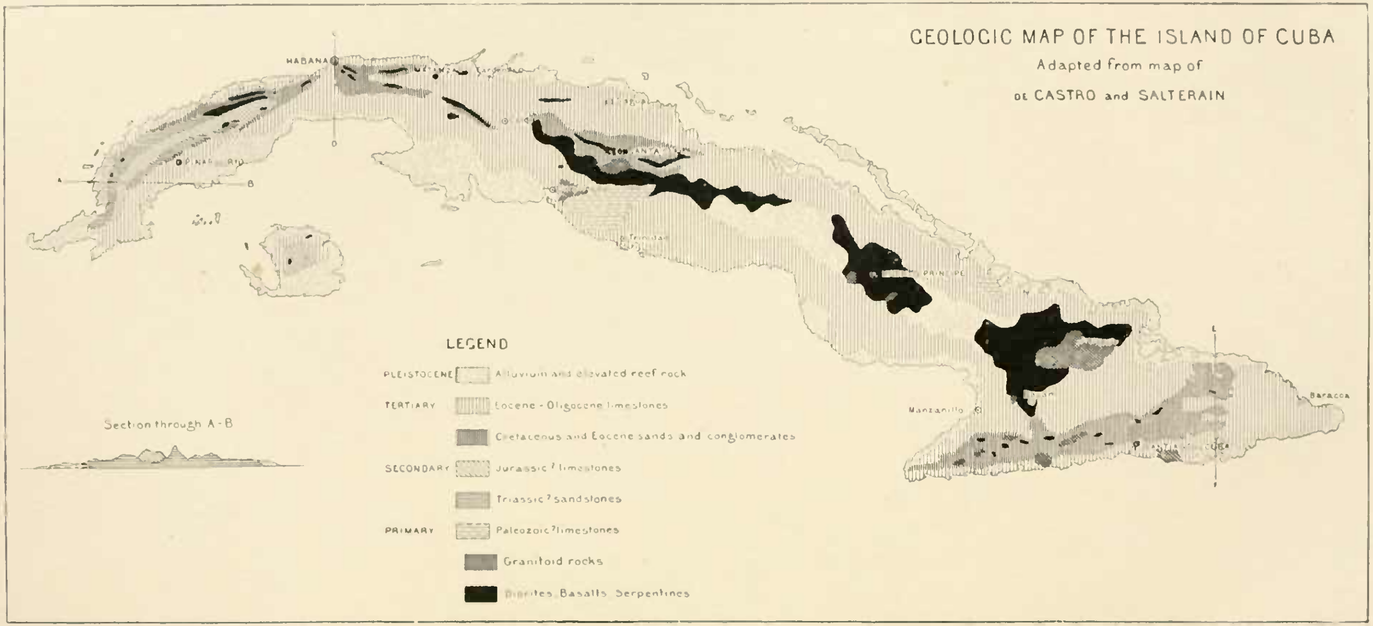
On the south side of Cuba the reefs and islets are even more numerous than on the north, but they are far less regularly disposed, and are not parallel with the shore. They extend a great distance from the land wherever the relatively smooth water is not exposed to the scouring action of marine currents. These reefs are somewhat rare on the part of the coast adjacent to the Windward and Yucatan passages. Manzanilla Bay, however, is more than half covered with reefs, which are continued westward by the so-called Cayos de las Doce Leguas, or Twelve-League Keys. Still westward, the Isle of Pines is connected with a perfect labyrinth of reefs and islets, the best of which are known as the Jardinillos and Jardines, named from the verdure-clad islets strewn like gardens amid the blue waters. In many of these, springs of pure water are said to bubble up from the deep.

The interior of Cuba has not been sufficiently surveyed to make it possible accurately to map all the details of soil or the relief of the surface, especially of the eastern half of the island. The various commissions named in times past by the Captains-General to make reconnaissances avow in their reports that the lack of habitation in the greater part of the territory, the impenetrability of the forests, the insurmountable Cordilleras, and the scarcity of means and time have prevented them from carrying out successfully the mapping of the diverse ramifications of the mountains, the tracing out of their salients and valleys, and the determination of their extent, altitude, and geologic structure. It seems that their observations did not extend east of the seventieth meridian, where the most interesting part of the island, from a scientific point of view, is found. Furthermore, the results of such investigations as were made were but imperfectly published in fragments.

In a previous chapter we have set forth the elementary arrangement of the Antillean Mountains, of which those of Cuba are a part. The higher eminences are true mountains of deformation, composed of disturbed sedimentary rocks with igneous intrusions. The mountains of this class do not constitute a continuous axial backbone to the island, as popularly supposed, but, so far as they can be classified at all, occur in three distinct and independent groups, known as the eastern, western, and central, respectively, the trends of which overlap one another *en échelon.*

The highest of the well-defined ranges is the narrow, precipitous Sierra Maestra, which dominates the straight east-and-west coast of Santiago de Cuba. This range extends through two and one half degrees of longitude, from Guantanamo to Cape Cruz, and constitutes an independent feature, topographically different from the other mountains of Cuba. Geographically it belongs in the same class with the higher summits of Haiti, collectively making the master range of the Great Antilles. This range is very precipitous and closely hugs the coast-line. Its crests culminate in the Pico del Turquino, which rises very abruptly from the sea to a height estimated to be 8600 feet in altitude. The Cerro del Oro, 3300 feet high, is another conspicuous peak in the ridge, seen about half-way between Santiago and Cape Cruz. La Gran Piedra, in this range, near Santiago, is 5200 feet high. The summit of this peak, from which it takes its name, is a gigantic block of conglomerate, which seems ready to topple down. East of Santiago the range is called the Sierra del Cobre. From base to summit these mountains are densely wooded, the vegetation ranging from coarse cactaceous chaparral on the lower and drier slopes to beautiful, almost indescribable, forests of tree-ferns in the higher and moister altitudes. These mountains are composed of non-calcareous conglomerates and shales of Mesozoic and Eocene age, intruded by great masses of dark-colored, mid-Tertiary, igneous rocks, the debris of which makes a clay and gravel soil,—one of the two contrasting types which constitute the greatest wealth of the island,—the whole incrusted on the coastward side to a height of 2000 feet or more by white limestones. The lower slopes are terraced after the manner of all the east end of Cuba, as previously described. The Sierra Maestra crest closely parallels the adjacent seacoast, toward which its slopes descend precipitously. Inland, toward the north, the slope is gentler, the eroded lateral ridges leading gradually down to the valley of the Cauto, the deep east-and-west indentation of which nearly separates these mountains from the region to the north.

A second group of mountains is the Sierra de los Organos, found in the extreme western province of Pinar del Rio, extending northeast and southwest between Mariel, near Havana, and Cape San Antonio. This range consists of lower ridges and of geologic formations different from those of the Sierra Maestra. Its summits culminate in the Pan de Guajaibon, west of Havana, which has an altitude of 2532 feet. Its rocks are composed of deformed sedimentaries of supposed Paleozoic, Triassic, Jurassic, and Tertiary age, the uplift of which may have been cumulative, but culminated during the close of the last-mentioned



GEOLOGIC MAP OF THE ISLAND OF CUBA
Adapted from map of
DE CASTRO and SALTERAIN

HABANA
PINAR DEL RIO
SANTA CLARA
Trinidad
PRINCIPE
Manzanillo
SANTIAGO DE CUBA
Baracoa
B
Section through A-B
LEGEND
PLEISTOCENE
Alluvium and elevated reef rock
TERTIARY
Eocene - Oligocene limestones
Cretaceous and Eocene sands and conglomerates
SECONDARY
Jurassic ? limestones
Triassic ? sandstones
PRIMARY
Paleozoic ? limestones
Granitoid rocks
Diorites, Basalts, Serpentines

period.[1] The Organos are covered with a growth of pine (*Pinus cubensis*) and flanked on either side by many beautiful slopes and valleys, those on the south constituting the famous Vuelta Abajo tobacco-lands.

While the Sierra de los Organos proper cease just west of Havana, the strike of their uplift, accompanied by the same character of dark-colored protrusions of igneous rocks flanked by the white Tertiary limestones, although void of the older rocks, is traceable by a series of low, disconnected hills, in a gently curved line passing throughout the central plain of the island and to the north of the third or central group of Trinidad, into the western part of the province of Puerto Principe. Thus, in a manner, this line of uplift, varying in intensity from the sharp ridges of the west to low, flattened folds in the middle provinces, constitutes the nearest resemblance to an axial backbone of the body of the sinuous outline of the island, while the Sierra Maestra constitutes the head. The principal components of these interrupted summits of low relief dotting the plains of Havana, Matanzas, Santa Clara, and Puerto Principe are as follows: Almost due south of Havana, commencing east of the village of Santiago, is a range of low, timbered hills, surrounded by plains, including the Tetas de Managua, the Arcas de Canasi, the Lomas de Camoa, the Escalera de Jaruco (which is visible from a great distance), and the Pan de Matanzas. Along the north coast between Havana and Matanzas there are many of these hills, which, as remarked by Humboldt, afford some of the most beautiful scenic prospects in the world. The occurrence of these lower timbered summits in a region which is generally level plain has afforded a safe retreat for bands of insurgents, who made them a base for frequent incursions upon the outskirts of Havana and Matanzas.

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[1] The general geology of the island, while not discussed in this book, is well shown in many of the illustrations. It may be briefly stated as consisting of an older basement of pre-Tertiary sedimentary rocks, in which Cretaceous and probably Jurassic fossils have been found. Above this there are, first, littoral beds composed of terrigenous material, and then a great thickness of white limestones consisting of organically derived oceanic material, as distinguished from true reef rock of late Eocene and Oligocene age. The island was reclaimed from the sea and assumed its present relief by a great mountain-making movement in late Tertiary time, succeeding the deposition of these limestones. In later epochs, Pliocene and Pleistocene, the island underwent a series of epeirogenic subsidences and elevations which affected the coastal borders, producing the wave-cut cliffs and a margin of elevated reef rock which borders the coast in many places, as can be recognized in the illustrations of the cities of Havana and Baracoa. So far as its history is known, the island has never been connected with the American mainland, although such has frequently been asserted to be the case. These assertions have been based upon the erroneous identification of certain vertebrate animal remains. There are no traces in the animal life of Cuba, past or present, which justify this conclusion. Some of the crystalline rocks may be very ancient, but most of them are mid-Tertiary in age.

For a brief interval these hills die out in eastern Matanzas, but upon crossing into Santa Clara, and from thence on into Santiago de Cuba, they reappear as long crest-lines and flat-topped plateaus, following a line near and parallel with the north coast, including the Sierras Zatibonico and Cubitas. The last-named ridge was an impregnable insurgent stronghold during the revolution of 1895–98, and was for a time the seat of the insurgent government.

These mountains continue along the north side of the island as far east as Gibara and Baracoa, where they become inextricably mixed with the remarkable topographic features known as the cuchillas—the remnants of a dissected upland plain, cut into a thousand cañons and salients, which are more fully discussed under the head of the limestone plains.

The third group of high mountains occupies a limited area between Cienfuegos and Santo Espiritu, on the south side of the central portion of the island and to the northward of the city of Trinidad, and entirely south of the axial group above described. These are less angular than the eminences of the Sierra Maestra, and consist of central summits with radiating slopes, the highest of which is El Potrerillo, 2900 feet. They are composed of semi-crystalline limestones and shales, which have been doubtfully considered of Paleozoic origin, flanked by highly disturbed Cretaceous and Tertiary beds. Interspersed between these mountains are numerous fertile valleys, giving to this part of Cuba its beautiful and diversified landscape.

The three dominant groups of mountains above described may be either topographic irregularities surviving from earlier epochs or eminences pushed up with the great sheets of white Tertiary limestone. This white limestone is one of the most marked features of the Cuban structure, and in all the intermediate and coastal areas the dominant formation of the island. It makes a thick crust, gently warped and undulated in many directions, and has great variation in altitude. Its maximum elevation (2500 feet) is in the extreme east; it gradually decreases to the center of the island, and rises again to the west. In the eastern and northern parts of the province of Santiago de Cuba it constitutes an elevated plateau, attaining a height of nearly 1800 feet, and embeds the base of the Sierra Maestra. Here it is so dissected by drainage that it gives a most rugged and picturesque relief to the district which it occupies, and presents on the seaward side a remarkable series of terraced cliffs, previously mentioned as rising in stair-like arrangement above the sea, representing successive elevations of the island in Pliocene, Pleistocene, and recent time. This topography culminates in extensive flat-topped summits like the Mesa Toar and the Junki (anvil) of Baracoa (1827 feet), which are so symmetrical in outline that they have been frequently mistaken for volcanic craters. The older and upper terraces are cut into numerous sharp, knife-edged salients, known as cuchillas, the Spanish word for knives. The lower terraces are cut straight across by wonderful vertical cañons, through which beautiful and limpid streams find outlet to the sea. In our wide travels in tropical regions we have never seen landscapes so unique as in this wild region of eastern Cuba, nor so beautiful, withal, in their rugged scarps and exquisite foliage. These terraces extend completely around the eastern end of the island, where they have their finest development on the south coast, between Cape Maysi and Guantanamo, and form a kind of dado to the Sierra Maestra range along the whole of the Santiago coast.[1]

Remnants of these terraces, such as flat-topped summits of circumdenudation, occur at rare intervals as far west as Matanzas, but with decreasing altitude. The most conspicuous of these are the Sierra Matahambre and the Pan de Matanzas (1200 feet). To the westward, in the provinces of Matanzas and Havana, the arch of the plateau, which follows the northern side, descends nearer and nearer sea-level, and develops a longer but gentle slope toward the south coast, hence presenting a cliff topography to the north sea, and gradually sloping southward, as the great central plain of Cuba, into the Caribbean. The southern slope produces the extensive *cienaga*, or swamp, known as the Zapata, on the coast opposite Matanzas, and continues out into the sea toward the Isle of Pines, forming the shallow foundation of the Jardinillo keys.

Through the provinces of Puerto Principe and Santa Clara, except where broken by the central mountains of Trinidad, this limestone stretch forms two wide coastal belts, each about a third the width of the island, separated by a central axial strip. West of Santa Clara these two belts unite into the broad plains of Matanzas and Havana, where they constitute the central sugar region of Cuba, the Vuelta Arriba, and again diverge west of the latter city along either side of the central mountains of Pinar del Rio, where they constitute the Vuelta Abajo. These limestone districts weather into fertile calcareous soils, red and black in color, and of a quality and depth unequaled in the world, and their extent in the level region is an almost continuous field of sugar-cane.

At two places throughout the length of the island there are depressions crossing it where the divide is reduced to

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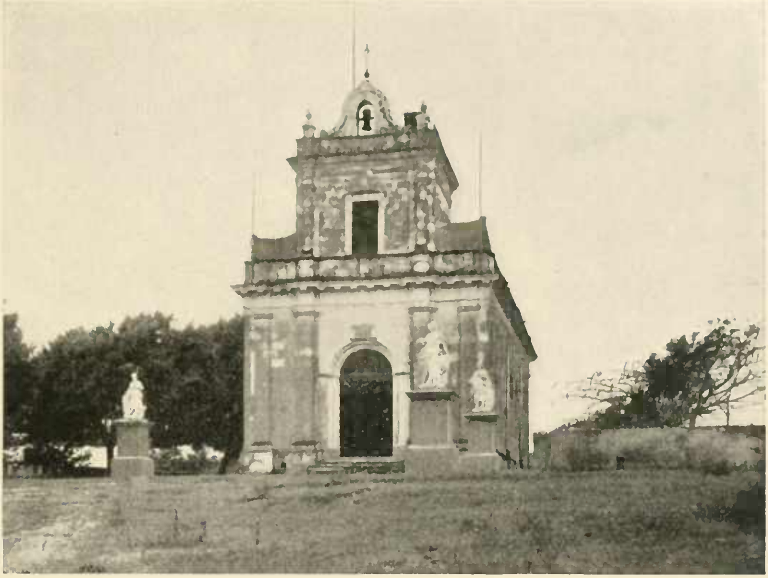
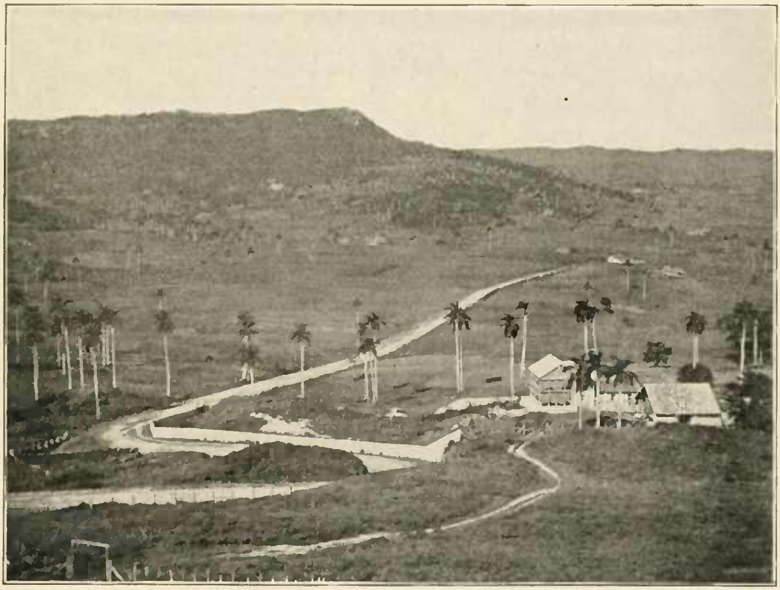
[1] The battle of Santiago was fought in the terraced foot-hills.



CHURCH OF MONTSERRAT



YUMURI VALLEY, NEAR MATANZAS

MATANZAS

less than five hundred feet. The first of these is between Moron and the south coast, in Puerto Principe, and the second between Havana and Batabano.

Cuba is famous for the beauty and fertility of its valleys, some of which are wide plains through which rivers and streams thread their way to the sea, and others circular amphitheaters surrounded by a perimeter of picturesque hills.

In the more rugged eastern provinces there are many valleys of the former class, of wide extent and great fertility. The most extensive of these is that of the Rio Cauto in Santiago de Cuba. It is situated in a protected position between rugged mountains on the north and south, and threaded by a navigable river, at the mouth of which is the city of Manzanillo, the seaport of the region. This valley is densely populated and has been one of the chief strongholds of the most recent uprising. It produces immense crops of sugar and other Cuban staples.

In Puerto Principe there are long grass-covered valleys parallel to the central mountains and the rugged coasts, which are the site of the cattle-raising industry of the island. These are underlain by gravelly soils, less fertile than those elsewhere found.

It is in the provinces of Matanzas and Santa Clara, however, that Cuba's most charming valleys are encountered. One of the most attractive features of Cuba, and the Mecca of every tourist, is the peculiar circular basin west of Matanzas, known as the valley of the Yumuri. This comparatively level depression is some five or six miles in diameter, and dotted with picturesque estates and long avenues of royal palms. Through its center winds the beautiful Yumuri River, which finds an outlet at Matanzas through the vertical walls of an exquisite cañon. It is inclosed on all sides by steeply sloping walls rising some five or six hundred feet to the level of a plateau out of which the valley has been cut. It has been truly said that it is impossible to describe the charm of this "Happy Valley," so rich in its vegetation, and so delightfully is it watered by the river Yumuri and tributary streams; so delicious, even on the hottest summer days, is its atmosphere, tempered by the Atlantic breezes.

The valleys of Santa Clara around Villa Clara, Cienfuegos, and Trinidad are even more picturesque, surrounded as they are by higher and more pointed mountains. In some of these from twenty to thirty large sugar-estates can be counted from a single point of view.

By provinces the relief may be summarized as follows: Santiago de Cuba is predominantly a mountainous region of high relief, especially along the coasts, with many interior valleys. Puerto Principe and Villa Clara are broken regions of low mountain relief, diversified by extensive valleys. Matanzas and Havana are vast stretches of level cultivated plain, with only a few hills of relief. Pinar del Rio is centrally mountainous, with fertile coastward slopes.

The rivers of Cuba are frequent, varying in character in different parts of the island. Considering the limited catchment areas, these streams are remarkably copious in volume. In the plains of the central and western provinces the streams flow from the central axis toward the corresponding coast, and have opalescent waters, like those of the limestone springs of Texas and Florida. In this part of the island these streams run through widely sloping valleys, with only slightly indented streamways, and are remarkably free from lateral ramifications. Cañons are not developed until they reach the abrupt plateau edge of the north coast. Many of the southward-flowing streams of this portion of the island do not reach the sea directly, but disperse into vast cienagas, or swamps. Several of the stream valleys, like that of the Yumuri of Matanzas, are accompanied by some of the most restful and beautiful landscapes in the world. The Rio Armendaris, which nearly encircles Havana on the southward and empties into the sea at Chorerra, affords that city an abundant supply of water. In this and other portions of the island where the limestone formation prevails, as in all the white-limestone areas of the tropics, a large portion of the drainage is subterranean, accompanied by many remarkable caverns. The rivers Cuyajabos, Pedernales, Guanajay, Copellanias, San Antonio, and others along the south slope of Pinar del Rio, disappear in limestone caverns, where they continue their seaward course. The Falls of Rosario in this province are of great beauty, as is also an immense natural bridge.

In the province of Santiago and part of Puerto Principe the drainage is more complicated. Rio Magari of Santiago has three fine cataracts before reaching the sea at Nipe. The limestone plateaus of northern and eastern Santiago de Cuba give rise to many rivers, the most remarkable of which are the Cabanas, the Yamanigacy, and the Moa, which in descending the escarpments of the high levels of the Toar disappear beneath the surface and reappear on a lower terrace, over the edge of which they are precipitated in cascades of three hundred feet to the coast. Other streams, such as the Yumuri of the east, find outlet through sharply cut cañons indenting the limestone cliffs of the back-coast border. The central portion of Santiago province is dominated by the Rio Cauto and its ramifications. This is the longest river on the island, and flows in a westerly direction for a distance of one hundred and fifty miles, draining the wide and fertile valley to which its name is applied. This stream is navigable for small boats for a considerable distance (eighty to one hundred miles), but its mouth has been obstructed by bars. The Sagua is a tidal stream which is also navigable for a few miles, as are also the Agabama near Trinidad, the Palma, and the Jatibonico.

There are no extensive lakes in the interior of Cuba, the only one of note being Lake Ariguanabo, situated in the hilly country twenty miles southwest of Havana. This is about six square miles in area, thirty feet deep, and contains many fishes. It is drained by a peculiar river, the

San Antonio, which disappears beneath the roots of a large ceiba-tree, without surface continuity to the sea.

With the exception of the great Zapata and a few swampy places toward the western extremity of the island, Cuba is singularly free from marshy or poorly drained land. Occasionally a few acres of *playa*, or low alluvial land, may be found around the harbors, but the rivers are free from wide bottoms, and the land as a whole stands well above the sea. The great swamp known as the Zapata occupies an area of about six hundred square miles on the southern coast, opposite Matanzas and Havana, bordering the shore for about sixty miles between the Broa and Cochinos inlets. It stands nearly at sea-level, but although almost a dead flat, it presents a great diversity of aspects. In some places the stagnant waters are dammed up by sandy strips along the coast; in others the surface is concealed by dense mangrove thickets; elsewhere channels without perceptible currents, the remains of former rivers, wind sluggishly amid the vegetation. Here and there open sheets of water sparkle in the sun, while others disappear beneath vast areas covered by the wide leaves of water-lilies. In places the ground is firm enough to support a clump of trees, but most of the surface consists of quagmires, or boggy expansions, inaccessible to man or beast.

There are many minor features in the physical geography of Cuba which cannot be here described in detail. The caverns are especially beautiful. The largest of these underlie the cuchillas of the east, but have never been systematically explored or described.

The cave of Bellemar, about two and one half miles east of Matanzas, is one of the sights of the island. It is reached by a pleasant drive along the seaside and through pretty suburbs. The entrance is situated upon the top of the coastal plateau and has a handsome building. This cave is open for three miles and is known to extend down five hundred feet in the white limestone. It differs from

AFTERNOON DRIVE IN RURAL CUBA

the caverns of our own country, such as those of Kentucky and Virginia, by the fact that, while the latter impress us with their magnitude, the Cuban caves overwhelm us with the beauty, snow-like whiteness, and delicacy of the stalactite and stalagmite forms; in fact, these have the whiteness and purity of Parian marble.

There are also some waterfalls, natural bridges, and many mineral springs and baths. Among the latter may be mentioned the springs of San Diego in the province of Pinar del Rio, which have long been a favorite resort of the Cubans. Their waters are reputed to be unusually salubrious and efficacious for many diseases, especially those of a rheumatic character.

Madruga, formerly known as the Cuban Saratoga, about two hours' ride by rail to the southwest of Matanzas, is also celebrated for its mineral springs. Its high situation renders its air much more cool and pleasant than that of the plain during the spring, when the southwest winds are annoying. The baths are more or less impregnated with sulphur, iron, magnesia, and potassa, and are recommended for rheumatism, paralysis, weakness of the stomach, scrofula, etc. There are several of these, such as La Pila, El Templada, etc. The water is rather cool. Invalids from all parts of the island formerly came here and found amusement in bathing, riding, and walking to the tops of the neighboring hills, from which fine views may be had. From the top of one of these, Cupey, the view of the valley of Clara is very fine. As far as the eye can reach one can see the waving cane-fields, with occasional patches of woods or clumps of palms, and lightened by the tall white chimneys of the sugar-mills, while in the distance there is just the faintest glimpse of mountains and hills fading into the hazy sea. Limonar, one of the most pleasant places on the island, is not far from Matanzas. Its air is very invigorating. From there one can drive to the San Miguel sulphur-baths.

CHAPTER VI

CLIMATE, FLORA, AND FAUNA

Temperature and precipitation. Native trees and flowers. The royal palm. Scarcity of mammals. Birds, reptiles, and insect life.

EXTENSIVE climatologic records are not available, except for Havana, and these are not applicable to the whole island, where it is but natural to suppose that altitude and position relative to the high mountains produce great variations in precipitation and humidity, such as are observable in adjacent islands. The Sierra Maestra probably presents conditions of temperature very nearly the same as the Blue Mountains of Jamaica, where the thermometer at times falls almost to the freezing-point.

Everywhere the rains are most abundant in summer, from May to October—the rainy season. As a rule, the rains, brought by the trade-winds, are heavier and more frequent on the higher slopes of the eastern end, although these are more arid near sea-level. At Havana the annual rainfall is 51.73 inches, or eight inches less than New Orleans. Of the total, 32.37 inches fall in the wet season. In New Orleans 27 inches fall in the same months. This rainfall is not excessive, being no greater than that of our Eastern States, although somewhat differently distributed. The air at this place is usually charged with eighty-five per cent. of moisture, which under the tropical sun largely induces the rich mantle of vegetation. The average number of rainy days in the year is one hundred and two. There is but one record of snow having fallen in Cuba; this was in 1856.

At Havana, in July and August, the warmest months, the average temperature is 82° F., fluctuating between a maximum of 88° and a minimum of 76°. The highest temperature recorded in Havana for ten years was 100°, or four degrees less than the highest of Washington city for the same period. In the cooler months of December and January the thermometer averages 72°, the maximum being 78°, the minimum 50°. The average temperature of the year at Havana, a mean of seven years, is 77°; but in the interior, at elevations of over 300 feet above the sea, the thermometer occasionally falls to the freezing-point in winter, hoar-frost is not uncommon, and during north winds thin ice may form. The maximum temperature is reached between noon and two o'clock in the afternoon, and the minimum between dawn and sunrise. The average diurnal range of temperature is about 10°.

For Matanzas, on the coast, about fifty miles east of Havana, there is a record for two years, beginning in August, 1832, and ending in July, 1833, and again beginning in January, 1835, and ending with December of the same year. From this record the mean annual temperature at Matanzas appears to be about 78°. The highest temperature is recorded as 93°, and the lowest as 51°.

At Santiago, on the extreme southeast coast, the temperature is apparently higher than on the northern and western coasts, and from the meager data available appears to be about 80°, with an average difference between the warmest and coldest months of about 6° F. A very short fragment of a record of temperature has been found for Trinidad de Cuba, about midway on the southern coast, giving the average temperature from December, 1851, to March, 1852, for the hours of 7 A. M., 2 P. M., and 7 P. M., as 72.8°, 78.7°, and 75.3° F., respectively; and the observer remarks that during that period the highest temperature recorded was 84°, and the lowest 64.5° F., and the greatest range in any twenty-four hours was 9.5°, which occurred upon the day having the highest temperature.

For the interior of the island only two temperature records have been found, namely, for Ubajay and the mines of San Fernando. Ubajay is (or was at the time) a village about fifteen miles southwest of Havana, and about 242 feet above sea-level. Its average temperature from four years' observations was 73.6° F. The record is quoted by Baron Humboldt, and was made during 1796–99. The place given as the San Fernando mines is about 150 miles eastward of Havana, and is 554 feet above sea-level. The temperature record is for the year 1839, and shows an average of 75°. From these records the average annual temperature of the interior of the island would appear to be considerably lower than on the coast.

The prevailing wind is the easterly trade-breeze, but from November to February cool north winds (*los nortes*, or "northers"),—the southern attenuation of our own cold waves,—rarely lasting more than forty-eight hours, are experienced in the western portion of the island, to which they add a third seasonal change. From ten to twelve o'clock are the hottest hours of the day; after noon a refreshing breeze (*la virazon*) sets in from the sea.

The whole island is more or less subject to hurricanes, often of great ferocity. The hurricane of 1846 leveled nearly two thousand houses in Havana, and sank or wrecked over three hundred vessels. In 1896 the banana-plantations of the east were similarly destroyed. Earthquakes are seldom felt in the western districts, but are frequent in the eastern.

All in all, the climate of Cuba is much more salubrious than it has been painted. The winter months are delightful,—in fact, ideal,—while the summer months are more endurable than in most of our own territory. The current impressions of insalubrity have arisen from an erroneous confusion of bad sanitation with the weather. While it is true that sickness follows the seasons, the former would

DRIVE TO THE BELLAMAR CAVES

ROYAL PALMS, SUGAR-ESTATE

OFFICIAL BUILDING

MATANZAS

be greatly allayed—almost abated—if public hygiene received proper official consideration.

The surface of the island is clad in a voluptuous floral mantle, which, from its abundance and beauty, first caused Cuba to be designated the Pearl of the Antilles. In addition to those introduced from abroad, over 3350 native plants have been catalogued. Humboldt said: "We might believe the entire island was originally a forest of palms, wild limes, and orange-trees." The flora includes nearly all the characteristic forms of the other West Indies, the southern part of Florida, and the Central American seaboard. Nearly all the large trees of the Mexican Tierra Caliente, so remarkable for their size, foliage, and fragrance, reappear in western Cuba. Numerous species of palm, including the famous royal palm (*Oreodoxa regia*), occur, while the pine-tree, elsewhere characteristic of the temperate zone and the high altitudes of the tropics, is found associated with palms and mahoganies in the province of Pinar del Rio and the Isle of Pines, both of which take their names from this tree. Among other woods are the lignumvitæ, granadilla, the coco-wood, out of which reed-instruments are made, mahogany, and *Cedrela odorata*, which is used for cigar-boxes and linings of cabinet work. Fustic, logwood, and many species of mahogany abound.

Although three hundred years of cultivation have exterminated the forests from the sugar-lands of the center and west, it is estimated that in the hills of those districts and the mountains of the east nearly thirteen million acres of uncleared forest remain.

Rich and nutritious grasses are found throughout the island, affording excellent forage for stock. The pineapple, manioc, sweet potato, and Indian corn are indigenous. When the flora of Cuba is studied geographically, it will doubtless be grouped under several subdivisions.

First among the beautiful trees of Cuba are the palms, some twenty-six varieties of which give shade, food, and life. At the head of these stands the royal palm, a tree peculiar to the island. This majestic tree consists of a tall, spindle-shaped trunk of fibrous wood, supporting a cluster of pinnate leaves. It is a marvel of beauty and utility, and is the most common of all trees in Cuba. It is met with almost everywhere; in the center of broad pasture-lands it often stands alone, tall and straight, while bordering the cultivated fields of the rich planter it forms shady avenues to his dwelling. Again, its seed finds root amid the gloom of the forest, sending the tall shaft high up to find room for its fairy-like cluster of plumes in the free air above. On the plains it often forms delicious groves of shade, and on the distant mountain it may be seen rearing its plumed crest against the sky, while in the valley below its dark leaves murmur softly in cadence with the winding river over which they sway.

This palm has been called the blessed tree, for every part of it has its usefulness to mankind. Certain medicinal qualities are claimed for its roots, and its trunk is easily split into strips, making excellent boards for the siding of houses, benches, and even tables. As the trunk is without any bark, and its center is very porous, increasing in density toward the outer surface, which is nearly as hard as glass, it is only the outside shell which furnishes these boards. From this hard, fibrous wood canes are made, which take a most beautiful polish. The leaves of the palm grow from the center of the trunk, first in the form of a delicate spire shooting up, which, gradually unfolding itself, forms a new leaf. These leaves continue to grow from the central spire to a great length, forming the cluster which, in the case of the royal palm, resembles so much a bunch of enormous plumes. The leaves, when they cannot grow any more, drop to the ground from the bottom of the cluster, thus making room for the new ones which are always coming out of the center. The bud or root of the central spire, from which the leaves grow, consists of a tender substance buried deep down within the cluster of green leaves, and forms a very palatable food, either in the raw state, or cooked as a vegetable, or made into a preserve with sugar.

One of the peculiarities of the royal palm is the stem of its long leaves. It is semicircular, and embraces the trunk of the tree, holding the leaf in place until it withers and drops to the ground. This stem is called the *yagua.* It resembles a thin board, often from four to six feet tall, and the Cuban insurgent makes it serve him a variety of purposes. For example, in the field it frequently is made to do duty as a plate by simply cutting off a section of it. By soaking in water it is rendered pliable, so that it may be folded almost as readily as a piece of stiff paper. Thus softened, it is folded at the ends, something after the fashion of a baker's paper hat, and fastened with wooden pins. In this shape it is called a *catarro*, and serves the Cuban farmer as a water-bucket, or a wash-basin, or a receptacle for milk, lard, cheese, eggs, or other products. A group of rebels may often be seen using a yagua thus folded as a kettle in which to cook their breakfast of beef and yams. The water keeps the fibrous wood from burning, and the food thus cooked requires no salt other than that which is extracted from the yagua in the process of cooking. It is also said that in case of absolute necessity salt could be obtained by the simple process of boiling water in a catarro when green, and one enthusiast estimates that a dozen catarros would produce a pound of salt.

The fauna of Cuba is peculiar. Only two land mammals are known to be indigenous to the island. One of these is a rodent, as large as our domestic rabbit, known as the agouti, which still inhabits the rocks and hills of the eastern end of the island in great numbers. This animal, which is found only in the West Indies, occurs also in the other Antilles and the Windward Islands, excepting Jamaica. The other land mammal is a peculiar insectivore, solenodon, belonging to a family of which other representatives are known only from Madagascar.

Among the reptiles may be mentioned a species of iguana, in the eastern end of the island. There are also a few snakes, none of which is poisonous or vicious. The natives are not a little proud of this fact, and even assert that venomous species when introduced gradually lose their poison. There are no venomous reptiles in the island. There is one enormous variety of boa, called the maja, of immense strength. It is perfectly black, as thick as one's arm, and capable of swelling itself out to nearly five times its natural size, and has a blood-red mouth—all of which sounds very alarming. But he is a lazy fellow and does not trouble himself about human beings, being satisfied with pigs and goats and even small game. The cayman, or crocodile, is found on the Isle of Pines, the same species which also occurs in the southern part of Florida, Jamaica, and Central America. A few fresh-water fishes are found in the streams, mostly of the family *Cyclidæ*, represented by species having a superficial resemblance to our sunfishes. A large lepidosteus, similar to the alligator-gar of our own Southern States, is found. The *Cyprinodontidæ* are also represented by two or three genera; these are related to the killies. In the caves of Cuba two blind fishes are found, one of which belongs to a family occurring elsewhere only in the great depths of the sea.

The insect life is abundant and beautiful. There are also many arachnids. While the sting of the scorpion and bite of the spider are temporarily painful, neither of them results in serious consequences.

The most interesting features of the fauna of Cuba are the wonderful land- and fresh-water mollusks, whose size and gorgeous coloring, like those of the *Helix picta*, place them among the most beautiful objects of the molluscan kind. The birds of Cuba are numerous, including both indigenous and migratory forms from other lands. The parrot is the most conspicuous of these, the others being of smaller size. There is only one humming-bird indigenous to the island. The shallower waters of the borders are inhabited also by that peculiar marine mammal, the manatee.

Collectively the fauna of Cuba, like that of all the islands, shows long isolation from other lands.

VIEW IN THE BOTANICAL GARDENS

FRUIT-STAND

A MARKET-PLACE

"LECHE A DOMICILIO"

DONKEYS LOADED WITH WOOD

HAVANA

CHAPTER VII

HEALTH AND SANITATION

Natural healthfulness of the island. Ordinary diseases due to tropical situation. Epidemics and yellow fever. Hygienic precautions and suggestions.

BEING within the tropics, Cuba is naturally subject to the diseases peculiar to them, such as malarial, bilious, and intermittent fevers, and liver, dysentery, and stomach complaints, the latter being chargeable more to indiscretion than climate, however. It is naturally more healthful than any of the other islands, with perhaps the exception of Jamaica. Unfortunately, these superior natural advantages are offset by the sanitary conditions of the cities, the death-rate, which is the best index as a rule, being entirely too large. According to Chaillé, "the actual sanitary condition of the principal ports of Cuba is very unfavorable, since in recent years their death-rates have ranged from 31.9 to 66.7 per 1000." The annual death-rate of Havana, estimated from the best attainable sources, was found by Chaillé to be 36.3 per 1000; of Guanabacoa, 39.8; of Marianao, 39.5. The sanitary condition of the inland towns is very little, if at all, better than that of the seaports. "The high death-rates of Guanabacoa and of Marianao are especially notable, because these suburban towns, within three and six miles of Havana, are summer resorts, and enjoy, especially Marianao, a high repute for salubrity."

If we compare these rates with that of London (18.8) or those of some of the principal seaport cities in the United States, it will be evident that there is ample room for sanitary regeneration.

The chief diseases causing death in Havana are, first, tuberculosis; second, the group of intestinal diseases including diarrhea, dysentery, and cholera infantum; and, third, yellow fever, a disease which chiefly affects strangers. Of these diseases the first class is world-wide, and need not be discussed further than to say that its presence here is favored by the prevalent humidity, and that those affected with it should keep away from the wet tropics in general. Of the second group of diseases, their occurrence in Cuba is largely due to an ignorance of precautionary hygiene, concerning exposure, water, and food, which is a little denser there than in our own country. Their elimination is dependent upon education. The third disease—the horrible vomito, or yellow fever—is a serious problem, beyond individual control, and requiring the attention of united governmental action. This disease is now thoroughly established in Havana, which was at one time "justly considered one of the most healthful localities on the island." Parts of the city are permanently infected with the germs of the disease, and are considered one of the main foci from which it is spread, and the source of all of its outbreaks in this country.

The occurrence of this disease in Havana has been studied in its every aspect by the highest medical officers of our army and marine hospital service, and its probable causes have been admirably set forth by Surgeon-General Sternberg in the "Century Magazine" of August, 1898. It is shown that the cause may not be the filthy condition of the harbor so much as the densely crowded and unsanitary condition of the houses of the poor, together with the primitive disposition of the sewage. Of the various evils recounted in connection with the subject of houses, there are some which deserve special attention. Many facts besides those associated with the holds of vessels justify the belief that the growth of the poison of yellow fever is specially favored in warm, moist, ill-ventilated places, where air is closely confined. A special report on the density of the population of Havana compared with numerous other cities has shown that more than three fourths of the people of Havana live in the most densely populated localities in the world. A tropical climate renders this evil still greater. The low-lying floors touching the earth, the small, densely packed houses, the unusually contracted ventilating-space in their rear, the large unventilated excavation for privies and sinks, all furnish, as is firmly believed, the most favorable breeding-places for the poison of yellow fever. In addition, statistics prove that, in great cities subjected to ordinarily unfavorable conditions, the denser the population, the sicklier and shorter the lives of the inhabitants. Common sense and experience unite to teach that the denser a population, the more wide-spread and frightful the havoc of communicable diseases.

Dr. Sternberg states that he fully believes that it is practicable to put the city of Havana in such a sanitary condition that it would be exempt from yellow fever. But that this is an undertaking of considerable magnitude, involving the expenditure of large sums of money, and requiring much time, will be apparent when we have taken account of the nature of the sanitary improvements necessary for the accomplishment of the desired result.

Surgeon-General Weyman is equally positive that Havana may be rid of this disease, which is such a menace to our country. England has driven it from permanent occupation of Jamaica and other West Indian Islands, and Mexico has excluded it from Vera Cruz, where, until the past ten years, it had an even more tenacious hold than in Havana.

Yellow fever occurs more or less in all the denser cities of the island; in fact, in the cities of all the islands of the

West Indies except those under British rule, from which it has been eliminated by perfect quarantine and internal sanitation. It is essentially a disease of the sea-coast, and especially of large cities in an unsanitary condition; but when circumstances are favorable it may extend into the interior, following routes of travel, and especially navigable rivers, of which there are but few in Cuba.

It is, however, confined to the lower levels, even in tropical or subtropical regions. In the Antilles the disease rarely prevails at an altitude above seven hundred feet, and hence a large part of Cuba is free from it.

In these pages I have endeavored to eliminate personal experiences, but while on the subject of health and sanitation I am tempted to depart from this rule. The greater part of my life has been spent in traveling in unsanitary regions, including many years in the worst plague-spots of the tropics. By taking advantage of the best hygienic rules and precautions, I have been able to avoid the fatality which has overtaken many of my predecessors in geological exploration.

Three rules I have followed invariably: first, to adapt my habits of dress, food, and hours of work and rest to those of the people of the country; secondly, never in any circumstances to drink a drop of native water where it could possibly be avoided, and if so always to boil it. For this purpose I have always carried an alcohol-lamp and a tin canteen, in which, when boiled water could not otherwise be obtained, I could myself attend to the matter. Twice when, in desperation after tedious exercises, I yielded to the temptation of drinking the native water unboiled, the results were almost fatal. The third rule has been never to linger around the densely crowded and unsanitary areas of cities, and always to choose a room facing on the street.

I have also carefully avoided the temptation to eat any kinds of fruits which may be offered, especially bananas, which, in the tropics, have an unpleasant acidity that

PACK-HORSE LOADED WITH RUM

A FUNERAL CAR

SCENES IN CUBA

deranges the digestion, not having undergone the mellowing and ripening process which this fruit passes through on its voyage to this country.

Finally, it may be said that exposure to the heavy rainfalls of the tropics, if not immediately followed by a change of clothing, invariably conduces to malaria.

CHAPTER VIII

GEOGRAPHIC SUBDIVISIONS

Administrative departments. Numerical population. Résumé of previous history leading to present conditions. Administration and government. Absolutism of authority. Its effects and influences. Religion and education.

BEGINNING on the west, Cuba is divided into six provinces, as follows: Pinar del Rio, Havana, Matanzas, Santa Clara, Puerto Principe, and Santiago. Under the military rule of the island these divisions have no particular political significance.

The local designations for natural divisions of the island are Vuelta Abajo, Vuelta Arriba, Cinco Villas, Camaguey, and the Tierra Adentro. The exact meaning of the terms "Vuelta Abajo" and "Vuelta Arriba" cannot well be interpreted, as they are idiomatic Spanish names. Among the significations of the word *vuelta* is "the turning of an arch"; and as the city of Havana, relative to which these terms are applied, is at the summit of an arch-like trend in the outline of western Cuba, it may be inferred that "Vuelta Abajo" signifies the downward or south trend of the island west of Havana, and "Vuelta Arriba" the upward or northern turn to the east of that city. "Vuelta Abajo" is applied to all the island lying west of Havana, and a portion of this is sometimes called the Partido de Fuera, which includes the part lying between the meridians of Havana and San Cristobal. The Vuelta Arriba includes the sugar plain eastward as far as Santa Clara. The areas contiguous to

Havana as a commercial metropolis are included in the Vuelta Arriba and Vuelta Abajo, and in the minds of the Havanese and the larger sugar-planters they comprise all of Cuba worthy of commercial or political consideration.

The other popular divisions, Cinco Villas, Camaguey, and Tierra Adentro, are the chief seats of the Cuban population, where opposition to Spanish rule has always been greatest; and though of entirely different topographic and economic characteristics, they rank equally with the Vuelta districts in every respect except wealth. These constitute the real Cuba of the Cubans, and will play a most important part in the future development of the island.

For administrative purposes the island is divided into two grand departments, known as the Eastern and the Western. The Western Department is again divided into the two grand districts (*gobiernos*) of Havana and Matanzas, and into the civil districts (*tenencias de gobierno*) of Pinar del Rio, Bahia Honda, San Cristobal, Guanajay, San Antonio de los Baños, Guanabacoa, Santa Maria del Rosario, Santiago de las Vegas, Bejucal, Guines, Jaruco, Cardenas, Colon, Sagua la Grande, Villa Clara, Cienfuegos, Trinidad, Santo Espiritu, Moron, and San Juan de los Remedios. The Eastern Department is divided into the grand districts of Santiago de Cuba and Puerto Principe, and into the civil districts of Nuevitas, Las Tunas, Manzanillo, Bayamo, Jiguani, Holguin, Guantanamo, and Baracoa. The civil or subdistricts are again divided into districts (*partidos*), of which there are one hundred and sixty-one in the island. The headquarters (*cabeceras*) are those towns and cities which give their names to the districts. The principal ones are Havana, Puerto Principe, Matanzas, Santiago de Cuba, Trinidad, Santo Espiritu, Guanabacoa, Villa Clara, Cienfuegos, Cardenas, Bayamo, and San Juan de los Remedios.

A century before the Anglo-Saxon found foothold in the New World, Spaniards, led by Velasquez and Diego, the son of Columbus, colonized Cuba and built the cities of Baracoa, Santiago, and Havana.[1] The earlier centuries of colonization were first marked by a fruitless search for gold, little of which was found, except as personal ornaments of the natives, who were enslaved and finally exterminated. Pastoral pursuits soon developed. Before the end of a century the cultivation of tobacco, an indigenous product, and cane imported from the Canaries, was begun, and African slavery introduced. During this first century the island was also the seat of great maritime activity, from which the explorations of the mainland proceeded. Morro, Punti, and other fortresses, which to-day stand in danger of annihilation, were begun before 1600.

The second century of the settlement of Cuba was marked by increasing agricultural development and colonization, but was disturbed by the constant fear of English bucaneers and French and Dutch pirates, who made the coastal cities their frequent prey. During this time the walls and primitive fortifications of Havana, Matanzas, and other cities interesting to the traveler, were built.

Similar conditions continued during the third century of European occupation. These ended in 1762 in the notable capture of Havana by the English under Lord Albemarle, who, assisted by American colonial troops, overcame the superior Spanish army and captured spoils amounting to four million dollars.

The treaty of Paris (1763) restored Cuba to the Spanish, and from that time until 1834 the island saw its greatest prosperity. The rich soil yielded its harvests of tropical products, and ships laden with precious cargoes sailed from its hundred ports. The island itself, in those days of wooden craft, became a center of ship-building. To Las Casas, who arrived as captain-general in 1790, is attributed the greater part of this brilliant epoch in Cuban history.

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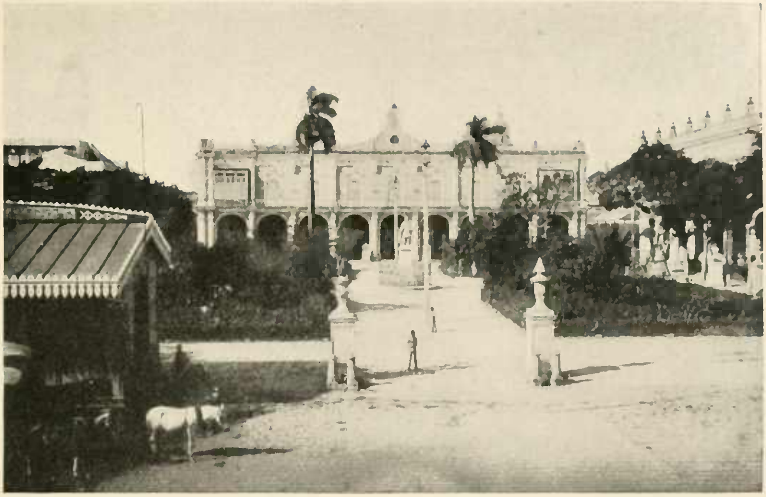
[1] Velasquez founded many towns upon the island, the first of which was Baracoa, in 1512; Trinidad, Santo Espiritu, and Puerto Principe, in 1514; and Santiago de Cuba and the original Habana, on the south side of the island near Batabano, in 1515.



PLAZA DES ARMAS AND CAPTAIN-GENERAL'S PALACE

TEMPLETE MONUMENT, ERECTED AT SITE OF FIRST MASS SAID IN HAVANA

HAVANA

He promoted with indefatigable perseverance a series of public works, including nearly all those now found upon the island; he established botanical gardens and schools of agriculture, sought far and wide for suitable plants for profitable culture, and, as far as possible, removed the trammels imposed upon commerce by the old system of privilege and restriction.

Owing to the wise administration of Las Casas, and its influences which were felt after his departure, Cuba's allegiance to the Spanish crown was maintained during the times (1794–1820) that witnessed the loss to Spain of her mainland colonies and Santo Domingo, and the terrible Haitian revolt against the French. It was this loyalty which caused Cuba to be termed the "Ever-faithful Island," a loyalty attested, in July, 1808,—when news reached Havana that Napoleon had overthrown the Spanish dynasty,—by the unanimous and patriotic action of the municipal corporations, which took oath to hold the island for the deposed sovereign, and declared war against Napoleon.

This patriotism was but poorly rewarded by the mother-country; for, beginning with that very year, she initiated the unwise policy of sending to Cuba as captains-general men imbued with no motive other than that of reaping from its revenues private fortunes with which to return to Spain. These men were armed with absolute authority. A few of them were honorable and noble; others, by their acts, covered their names with infamy.

By the decree of 1825, which still constitutes the fundamental law of Cuba, the captains-general were armed with a despotic authority such as is known in no other Christian country. This enabled them to arrest, banish, execute, or otherwise punish any resident of the island whom they suspected; and later the decree was supplemented by authority to set aside the judgments of the highest courts. These acts deprived the inhabitants of all political, civil, and religious liberty, and practically excluded them from public office.

The result was an end to domestic peace, and the initiation of uprisings which have continued at intervals since the conspiracy of the "Black Eagle" in 1829. The insurrection of the black population in 1844, the conspiracy of Narciso Lopez, and his three landings from the United States in 1849, 1850, and 1851, respectively, and the revolutions of 1868 and 1895, have all resulted from wrongs inflicted by an ungrateful mother-country upon a colony that had proved in a time of general revolution the most loyal of all her dependencies.

The period of prosperity initiated by Las Casas completely ended upon the appearance, in 1836, of Captain-General Taçon, one of the Spanish officers who survived defeat in the wars of the South and Central American colonies for independence. Soured by previous defeats, he inaugurated a system of greed and violence. He has been described as "a true type of the Spanish oppressor, born with a contempt for everything but force, and hardened by the omnipotence of his Spanish commission."

During his term of office he was as severe with native Cubans as he was lenient with old Spaniards, who alone were appointed to offices of profit or honor.[1] This policy created the breach between Cubans and Spaniards, which has increased with years.

While this soldier was in full power, news of the constitution proclaimed in Spain reached Cuba (September 27, 1836). A move was made by the Cubans to secure their just share of the liberties accorded to Spaniards; but Taçon decreed that no change should be made without his express orders. Taxation grew from year to year, and persecution of the creole Cubans increased. The Spaniards meanwhile profitably prosecuted the slave-trade, notwithstanding that the importation of Africans was forbidden by the law of 1820. In 1848 many arrests were made on suspicion of a plot among the slaves about Matanzas against the white people. Officers of the permanent military commission closely examined many persons; but, as interrogation failed to fix responsibility, the prosecution resorted to torture and the block, flogging the unwilling witnesses, who were stretched head downward on a ladder. This process, first applied to slaves, soon extended to the free colored people, and then to the whites. The commission executed, condemned to hard labor, banished, and imprisoned 3076 people. This iniquitous proceeding was the cause of the first revolutionary movements led by General Narciso Lopez in 1849, of the expeditions of 1850 and 1851, and of Quitman's expedition of 1855.

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[1] Notwithstanding the severity of Taçon's administration, he was the only captain-general of this century who made public improvements. An English writer says that, under the governorship of the celebrated Taçon, Havana soon resumed its foremost position, and was almost entirely rebuilt in stone and masonry, whereas hitherto most of the houses had been of wood, thatched with straw. If you ask, "Who built that fine edifice?" the answer is invariably, "Taçon." "Yon theater?" "Taçon." It is literally a case of *Taçon qui, su e Taçon giù*. He is the benevolent *Figaro* of the place. The wonders which he performed in a short time prove clearly that when the island is energetically governed it flourishes marvelously.

After 1851 a party—the forerunner of the present Autonomists—sprang up, desirous of coming to a settlement to insure the rights of the colony without impairing the interests of Spain. After protracted efforts it succeeded in obtaining an inquiry at Madrid into the reforms needed by Cuba; but the only alteration decreed was a new system of taxation, more oppressive than the former.

After the suppression of the revolts in 1855 another brief era of prosperity was inaugurated, and continued until the great insurrection of 1868, which lasted ten years. Spanish losses during this decade, as reported at the office at Madrid, were 208,000 men; Spain's forces against the insurgents, 257,000 men; Cuban losses, from 40,000 to 50,000 men. The outlay on both sides was $300,000,000, while the value of property destroyed amounted to an equal sum.

At the close of this devastating war Cuba had almost gained her freedom; but, seduced by the diplomacy of Spain, the care-worn leaders laid down their arms under promises of autonomy and self-government similar to those used less effectively to quell the revolt of 1895–98. Hardly had the insurgents returned to their homes when Spain, unmindful of her promises, resumed her tyrannical methods of administration and of oppression of the native people; and soon the latter had lost all the prestige gained by arms. By 1894, the year before the latest revolution began, the despotism of the Spanish officials had become more unendurable than ever. During this year of tranquillity the writer, while visiting the island, witnessed with amazement the operations of Spain's colonial government, administered by a horde of carpet-bag officials upheld by vigorous military law, without one thought for the welfare of the natives or the improvement of the island.

The American who undertakes to investigate the history of the Spanish government in Cuba inevitably finds the details too revolting to be described. Greed, injustice, bribery, and cruelty have been practised with such frequency that volumes could be filled with their horrible details. Above all these, however, stands the fact of Spain's endeavors to wipe out by butchery and starvation the entire native population. The first of these attempts, practised in former centuries upon the aborigines, was successful.

In 1844 over 3000 people were executed. During the ten years' war it is estimated that fully 20,000 people suffered a similar fate. The official records show that 4672 people were executed during the first half of that war. Women were similarly treated. During the ten years' war Captain-General Valamaseda wrote: "Not a single Cuban will remain on this island, because we shoot all those we find in the fields, on their farms, and in every hovel. . . . We do not leave a creature alive where we pass, be it man or animal. If we find cows, we kill them; if horses, ditto; if hogs, ditto; men, women, or children, ditto. As to the houses, we burn them. So every one receives what he deserves—the men with bullets, the animals with the bayonet. The island will remain a desert." The intentions of this officer were only foiled by the arousal of foreign public sentiment against him, and his replacement by the humane General Campos, who tried to restore peace. The third attempt at extermination, a matter of present history, was made by Weyler, who expressed sentiments as ferocious as those of Valamaseda. The first act of the Spaniards upon the outbreak of the present revolution was to arrest, imprison, deport, shoot, or otherwise punish every man who was suspected of disloyalty. This class included all who were suspected of liability to become revolutionary sympathizers, such as the leading men of the learned professions, — doctors, lawyers, editors, and the faculty of the university,—who during the past three years have been imprisoned in the dungeons of Ceuta, Africa, where 730 leading Cuban citizens were recently confined, or upon the Isle of Pines.

How successfully Weyler's policy has been partially carried out can be answered by the graves of a fourth of the population, which have been recently filled with starved or assassinated victims of his cruelty. Had not this government raised its voice and demanded his recall, the sole remnant of the Cuban people would now have consisted of the soldiers of Gomez.

Since its discovery Cuba has been a crown colony of Spain, occupying a relation to that country, so far as the absence of local self-government is concerned, comparable to that which Alaska occupies to this, but governed by military instead of civil authority. Some of the Spanish islands, like the Canaries, Balearics, and, until recently, Porto Rico, are integral parts of the mother-country, having equal rights with the people of the Peninsula. Cuba, however, has ever been treated solely as a subordinate colony. The central and absolute authority of the crown has been represented by a governor, called the captain-general, controlling the land and sea forces and residing at Havana. His authority has been backed, even in times of peace, by a Spanish soldiery larger than the standing army of the United States, and with police powers unknown in this country.

Cuba has two high courts; but the captain-general is above either court, having the right of setting aside all judgments, as appears from the royal decree of June 9, 1878, defining his duties and prerogatives. His power not only overrules decisions of all the judicial authorities, including the justices of the court of judicature, but also enables him to withhold the execution of any order or resolution of the home government "whenever he may deem it best for the public interests."

During the present century the Spanish crown has made various pretenses of giving to the inhabitants of the island greater political privileges; but all of these, down to the latest autonomy scheme, have been the merest subterfuges, void of the true essence of local self-government, with a reservation by which absolute and despotic power remained in the hands of the Spanish captain-general. Thus it was that in February, 1878, the ten years' revolution was ended by General Campos. Under the stipulations of the treaty the island was allowed to be represented in the Spanish Cortes by sixteen senators and thirty deputies; but restrictions were so thrown around their selection that Cubans were practically debarred from participating in the choice of these members, notwithstanding that these so-called representatives were utterly powerless to press any Cuban measure in a Cortes of over nine hundred members, or to put it to a vote.

While the primary functions of the government have been to attend to the prerogatives of the crown and the collection of revenues, its attention has been largely devoted to the personal enrichment of the officials through misfeasance and to the prevention of the secession of the island. It has practically ignored the collection of statistics, the promotion of education, and the establishment of public works and proper public sanitation. Few, if any, educational institutions have been erected at public expense, at least since the days of Taçon; no public highways have been constructed, nor have any improvements of a public character been made outside of the city of Havana. Even when the Cubans have undertaken such improvements, they have been heavily taxed for the benefit of the Spanish officials. The administration of Cuba is, and has been since the settlement of the island, an absolute military despotism.

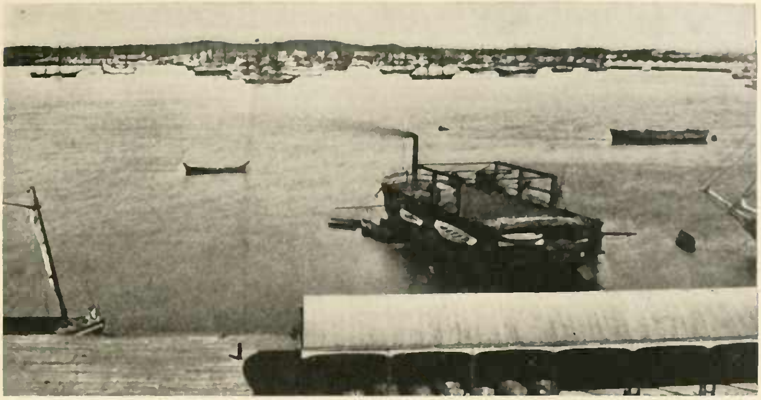
Above all the numerous edicts, decrees, customs, and police regulations, the fundamental law of the island is the will of the captain-general, enforced by the following decree of May 28, 1825, which is still in force, giving to the captain-general "the most ample and unbounded power, not only to send away from the island any persons in office, whatever be their occupation, rank, class, or condition, whose continuance therein your Excellency may deem injurious, or whose conduct, public or private, may alarm you, replacing them with persons faithful to his Majesty, and deserving of all the confidence of your Excellency; but also to suspend the execution of any order whatsoever, or any general provision made concerning any branch of the administration, as your Excellency may think most suitable to the royal service."

Under this law, which has been utilized with terrible effect, misfeasance has developed beyond description, and freedom has been a mockery. Year after year the least liberty of thought or expression of opinion or suspicion of liberal ideas on the part of the individual or the press has resulted in imprisonment, death, or deportation. Furthermore, the elsewhere obsolete punishment of torture has added horror to the cruelty of this edict.

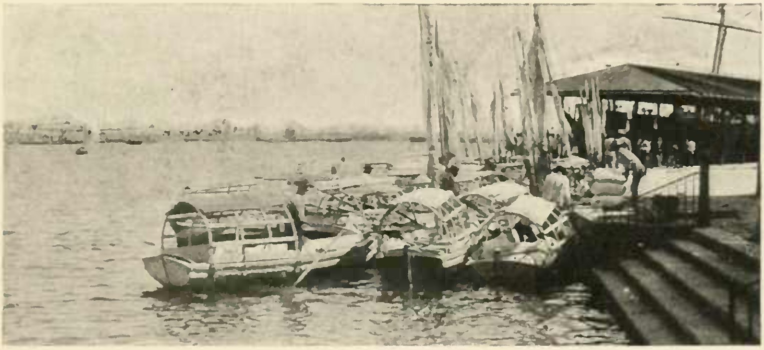
The right of free speech on the part of the individual citizen has not only been restricted, but the rigorous press law of 1881 requires every editor or manager of a paper to send, duly signed by him, two copies of each issue to government headquarters and two other copies to the district attorney as soon as printed, that it may be seen whether any objectionable remarks are contained therein. Nearly every publication in Cuba has been suspended at one time or another, and its editor fined, imprisoned, or deported to the penal colonies.

This military despotism has been accompanied by a system of exorbitant taxation, such as has never been known elsewhere in the world, including at times an average of forty per cent. on all imports, in addition to taxes upon real estate, the industries, arts, professions, the slaughtering of meats, and a burdensome system of stamp taxes, which even included in its far-reaching application the affixing of an impost stamp upon every arrival at a hotel. The processes of possible direct taxation being exhausted, the government resorted to the establishment of a most nefarious and contaminating lottery system, which yielded a profit of four million dollars annually.

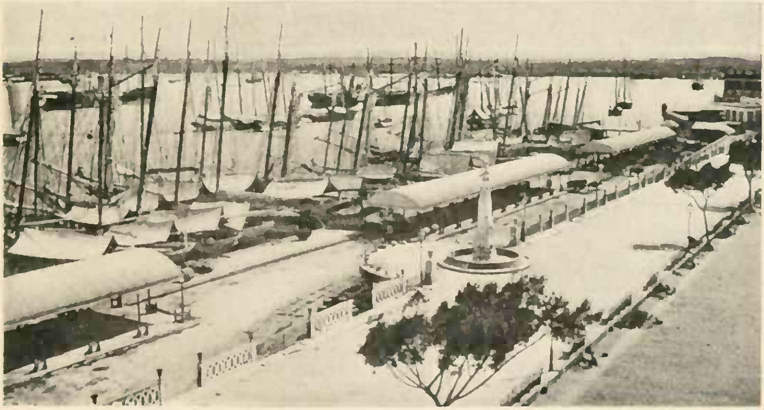
The profits to the active official classes, not including the fruits of bribery, are estimated at about $15,000,000 annually, besides Cuba's contribution to pensioners in Spain—a tidy sum for supporting the luxurious leisure of these classes, as the following figures will show. Some of the official revenues, one half of which are derived from customs, the remainder from numerous species of direct taxation, have been: 1825, $5,722,198; 1867, $33,000,000; 1869, $52,500,000; 1877, $60,000,000; 1879, $54,000,000; 1884, $34,269,410; estimated revenue for 1893–94, $24,440,759; for 1897–98, $24,755,760. The disposition of the $34,269,410 of revenues raised by taxation in 1884 shows clearly how it was diverted to Spanish profit. Of this sum, $12,574,485 was paid for old military debts incurred by Spain in suppressing Cuban outbreaks and otherwise riveting the shackles of tyranny upon the Cuban people; $5,904,084 for the ministry of war; $14,595,096, or nearly one half the revenue, for supporting Spaniards, as follows: pensions of Spanish officers, $468,000; pay of retired Spanish officers, $918,500; salary of captain-general, $50,000; salaries of colonial officials (all



REGLA, THE BROOKLYN OF HAVANA—FERRY-BOAT IN FOREGROUND



AT THE BOAT-LANDING



WATER-FRONT, HAVANA BAY

HAVANA

Spaniards), $10,115,420; church and clergy (all Spaniards), $379,757; military decorations (to Spaniards only), $5000; pay of gendarmerie (all Spaniards), $2,537,119; expenses of Spain's diplomatic representatives to all American countries except the United States, $121,300. This left $1,195,745 for the ordinary administration of the island, such as education, public works, sanitation, the judiciary, etc.; but if any of the sum was so expended, there are no visible monuments in evidence of the fact. There is a well-grounded suspicion that most of this sum reached the pockets of the officials. It may be said that in round numbers $26,500,000 have been annually contributed by Cuba to the profit of the people of the mother-country, and devoted to purposes by which the island has been in no way benefited.

In addition to the legal taxation, the commerce is burdened by a system of illegal taxation in the form of bribes, which are necessary to the securing of any legal action. Little or none of this money was devoted to education, science, public construction, harbor improvements, highways, sanitation, or other benevolent purposes, such as those to which our free government devotes its per-capita tax of $13.65. It is also a remarkable fact, notwithstanding the extravagant taxation, that only about $100,000,000 have been remitted to the mother-country during the past century, most of the revenue having been diverted to maintain the official classes. It is a common assertion that, with the exception of Martinez Campos, no captain-general has ever returned to Spain after a four years' intendancy except as a millionaire.

The first generation of Spanish-born immigrants cried as loudly in protestation against the exactions of the mother-country as do the oldest creole families. Their commerce was restricted; their industrial development prohibited; their resources were exhausted; and their health, lives, and liberties forfeited to uphold the institutions of an incapable mother-country. Not a single motive of civilization could be detected in Spain's treatment of this colony during the past century. Cuba, under perpetual misgovernment, has seen her trade decrease, her crops reduced, her creoles deserting to the United States and the Spanish republics, and her taxes trebled in vain, to meet the ever-increasing expenses and floating debts. England, in the wisdom of her government, has distributed colonies throughout the world, given them the fullest limit of self-government, preserved the patriotism and loyalty of their people, opened their commerce to all nations upon equal grounds, and demanded of them not one cent of tribute. Her colonial system is the highest practical manifestation of the civilization of the age. The colonial policy of Spain toward Cuba has been the antithesis of this in every respect.

Cuba is divided into two dioceses, which are the archbishopric of Santiago de Cuba, containing fifty-five parishes, and the bishopric of Havana, containing one hundred and forty-four parishes. No Cuban-born priests are found in any church of importance. In the cathedral chapter at Havana there is only one Cuban, and only two natives have ever obtained any especial preferment, the miter never.

The same oppression obtained in the church as in the state, the former being used for base ends in many instances, and against the protest of the authorities at Rome. While nominally Catholics, and so holding that church responsible for what they do, many Spaniards in and out of Cuba are very poor Catholics, and they commit many acts of which the church authorities by no means approve. For example, the Cuban native who becomes a Roman Catholic priest fares about as badly as does the Protestant preacher.

There is not a parish on the whole island that supports an endowed school. Recently there was a crusade against the civil marriage ceremony. The objection came because of the loss of fees to the priest. The crusade was led by the Spanish-born priests, who charge Cubans twice as much as they charge for Spaniards. Parishes are farmed out on account of profits—not by the church, but by the Spaniards. No priest gets these desirable parishes unless he happens to have been born in Spain. It is the Spanish blood that contaminates the church, and not the church that does the injury. It was partly the Spaniards' acts in introducing abuses into the church that brought about the latest insurrection. The religious condition of the island is as bad as the political.

Education is still much neglected. The chief educational institutions are the Havana University, two professional schools, with meteorological observatories attached, one agricultural school, and two seminaries. There are several private as well as public schools, aggregating in all seven hundred and fifty institutions, with some thirty thousand students and scholars.

The Havana University is modeled after the Spanish universities, and its curriculum is chiefly devoted to medicine, law, theology, and an obsolete system of philosophy. Its entire faculty was disposed of by imprisonment and banishment last year, while the students have always been looked upon with a suspicion of sedition. The public schools are decidedly few, most of the better classes of Cubans patronizing the private institutions.

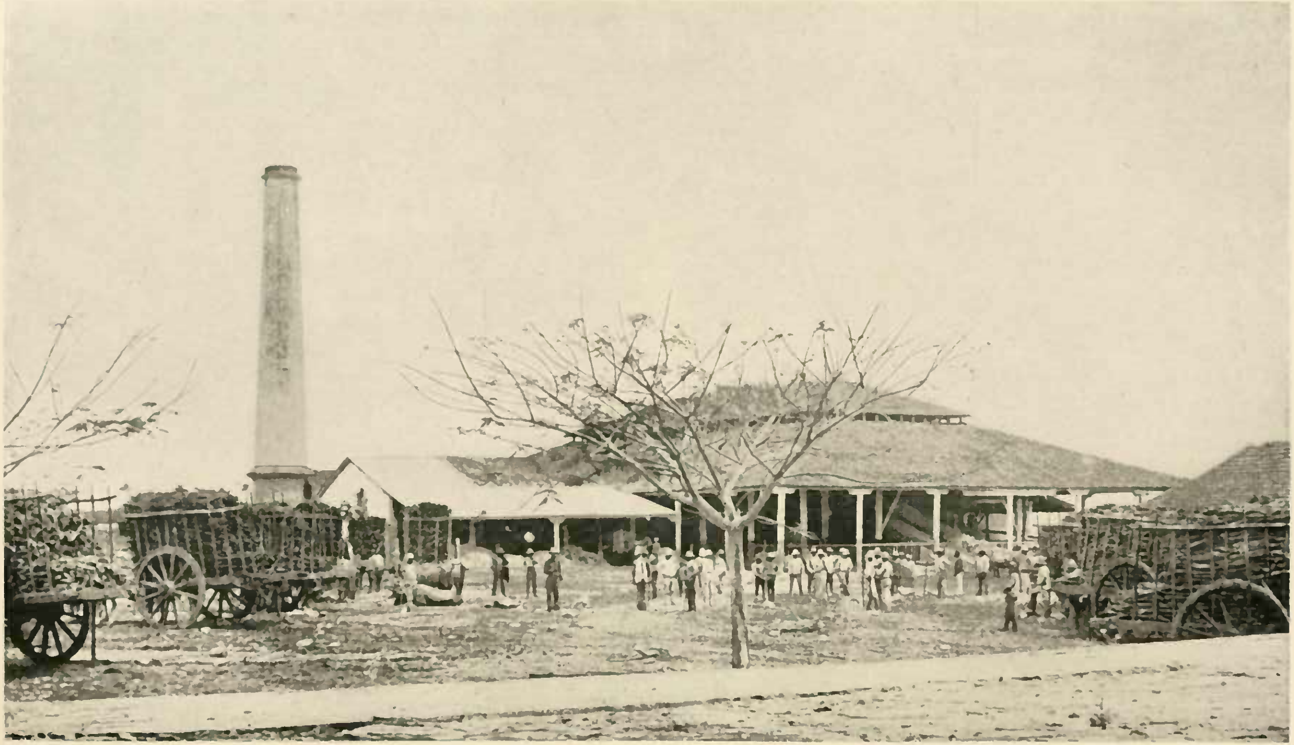
CHAPTER IX

THE RESOURCES OF THE ISLAND

Agricultural supremacy. The cultivation of sugar. The superior advantages of Cuba for sugar-culture. The plantations described. Tobacco-culture. The *vegas* of the Vuelta Abajo. Skill of Cuban tobacco-planters. Coffee, fruits, and minor agricultural products. Cattle and live stock. Minerals.

THE principal products of Cuba are agricultural, and consist of sugar-cane, tobacco, coffee, bananas, corn, oranges, and pines, in the order named.

The raising of sugar-cane overwhelmingly preponderates, and heretofore has been the mainstay of the island. The Cuban sugar-lands are all upland soils, quite different from the lowlands of Louisiana, and excel in fertility those of all the other West Indies. The cane requires to be planted only once in seven years, instead of every year, as in Antigua. No fertilizers are used. The machinery of the estates up to the outbreak of the present revolution was the finest and most modern in the world. According to statistics elsewhere presented, this industry has been almost destroyed within the last three years. It originated in 1523, when a loan of four thousand pesetas to each person wishing to engage in it was made by King Philip I. The whole of the vast central plain and much of the region from the Cauto westward to Pinar del Rio, except where broken by hills, is one continuous field of cane, which in 1892–93 yielded 1,054,214 tons, valued at $80,000,000, besides giv-



SUGAR-HOUSE ON PLANTATION, CUBA

ing employment to large commercial and transportation interests. The sugar-plantations vary in extent from one hundred to one thousand acres, and employ an average of one man to two acres.

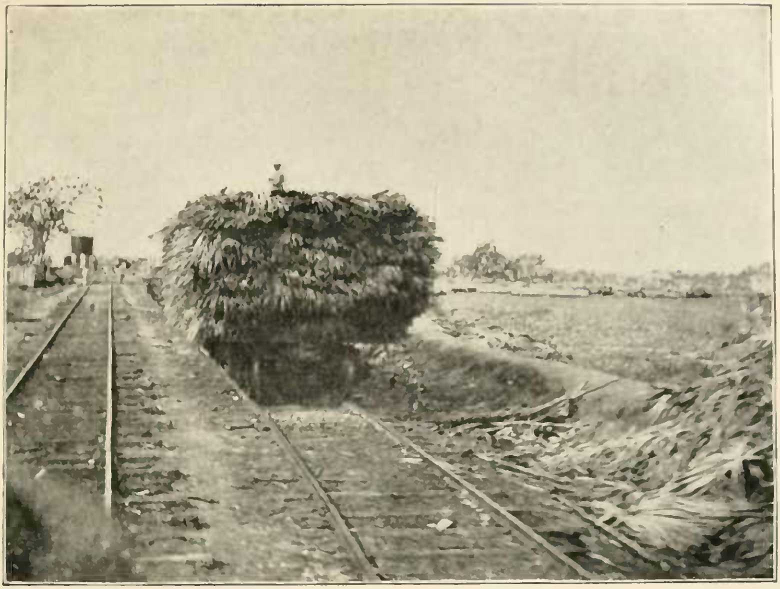
These estates are models in every respect, and possess the most scientific and recent inventions for the cultivation of the cane and extraction of its juices and their conversion into the crystal. The houses and quarters are neatly built, and attention is paid to the esthetic and ornamental. On the Concepcion estate, for instance, the quarters for the laborers are built in the form of a quadrangle, with a fountain in the center, at which bathing can be enjoyed; and there is a well-organized hospital for taking care of the sick. There is a *crèche* where old women take care of the piccaninnies of such mothers as work in the fields. A lovely garden is also laid out in a tasteful manner with orange-groves and fragrant walks. The great *centrals*, or grinding plants, are enormous establishments, which in the grinding season are busy centers of industry. Some of the centrals have over forty miles of private railway leading from the fields to the mills.

The superior systems of handling cane and extracting the juice have made it possible to continue the profitable cultivation of cane-sugar in Cuba, in face of the recent competition of beet-sugar, which has so impoverished the other islands of the West Indies. Furthermore, the Cuban cane contains a larger percentage of sugar than that of any other American country except Mexico.

Cuba, in times of peace, produces about one million tons of cane-sugar—more than twice as much as Java, the next largest cane-sugar country of the world, and more than five times as much as any other cane-sugar country. Among the beet-sugar countries it is surpassed only by Germany, with one and one half million tons, and is equaled only by one other, Austria. It must be regarded as a singular state of affairs that, while in all the other West Indian Islands, and, in fact, in nearly all cane-sugar countries, the industry is in a desperate state, warranting special commissioners to inquire into its illness and its needs, the Cuban industry has gone ahead and prospered under a government which pillaged it steadily, and in spite of outrageous railroad freights, bad shipping facilities, the heart-breaking question of European bounties, and discrimination to its detriment by American buyers. The reasons why it has prospered are quite clear. First, the climate and soil are admirably adapted to the needs of the cane; secondly, the Spaniards and Cubans have had the courage to centralize their sugar-houses and go at the business individually, on a scale unequaled in any other country on the globe. Old, small places were replaced by powerful factories equipped with the best of modern machinery, narrow-gage roads were built in all directions, and, in short, great sums were spent, and spent well. The main essentials of competing with the beet-sugar countries were understood and complied with, while the other islands are still hesitating.

The machinery used in the manufacture of sugar on a large estate is very extensive. A large central will grind one thousand tons of cane in twenty-four hours, or, say, one hundred thousand tons in a season of one hundred days. A boiler-capacity of twelve to fifteen hundred horsepower is necessary to do this, nearly all of which power is used for driving the various pumps and engines, the evaporation being performed by the exhaust steam. Such an establishment is worth in Cuba about half a million dollars, and its annual output is worth about the same amount. Three or four locomotives and about one hundred cars are necessary to haul the cane, and about one thousand men are employed in the field and the works. Besides, one to two thousand head of cattle for hauling and slaughtering are needed. There are many such establishments in Cuba, and there is room for more.

Tobacco, while secondary to sugar, is far more profitable in proportion to acreage. This product grows well in all



A CAR-LOAD OF SUGAR-CANE, SANTA ANNA

CUTTING SUGAR-CANE WITH MACHETE

SCENES IN CUBA

parts of the island, but the chief seat of its cultivation is along the southern slopes of the Sierra de los Organos, in Pinar del Rio—the famous Vuelta Abajo region, which produces the finest article in the world. Good tobaccos are also exported from Trinidad, Cienfuegos, and Santiago.

The best tobacco-farms are known as *vegas*. These are comprised in a narrow area in the southwest part of the island, about eighty miles long by twenty-one in breadth, shut in on the north by the mountains and on the southwest by the ocean. These vegas are generally located on the margins of rivers, their ordinary size not being more than thirty-three acres. About one half of each vega is planted in *platanos* and vegetable gardens for feeding the laborers. The usual buildings upon such places are a dwelling-house, a drying-house, a few sheds for cattle, and perhaps a few small *bohios*, or huts, for the shelter of the hands, who in most cases number twenty or thirty to each place, and are the lower class of whites, although some negroes are employed.

The vegas are beautifully kept places, and present to the eye a handsome and imposing sight. They are usually fenced with deep stone walls and have handsome arched gateways, from which avenues of royal palms lead up to the residence, which is a roomy house, with porches adapted for comfort in this tropical climate.

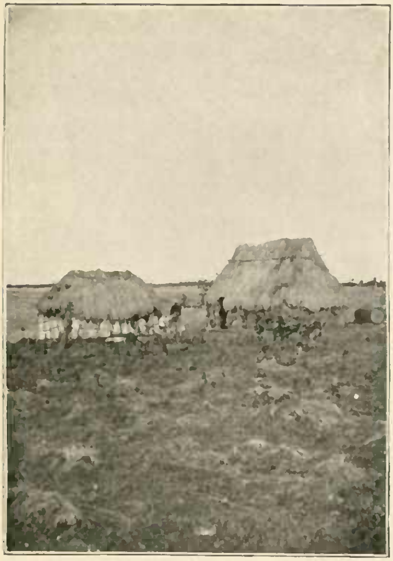
The Cuban tobacco-planters have a wonderful intuitive knowledge of the delicate processes necessary to growing the tobacco-plant and producing the desired results, such as increasing its strength or height, or regulating the quantity of foliage, and guarding against insect pests. The plant grows to a height of from six to nine feet. The leaves are classified into four kinds, the best of which grow near the top of the plant. The poorest quality, known as the *injuriado*, comprises the lower leaves of the stalk. Even this grade is reclassified into three qualities on the farm. It is not necessary to enter into the full details of the classification of Cuban tobacco. It is sufficient to state that the excellent character which Havana cigars have maintained is due largely to the remarkable care with which the different qualities of leaf are graded both on the farm and in the factories of Havana.

A vega of average size produces about 9000 pounds of tobacco, in the following proportions: about 450 pounds of the best quality, 1800 of the second, 2250 pounds of the third, and 4500 pounds of the injuriado. This is made up into bales of 100 pounds, which bring an average price of about $20 per bale, although some of the higher qualities bring as much as $400 per bale.

There are dozens of large cigar-factories in Havana, giving employment to thousands of people of both sexes and all ages. In 1893, 6,160,000 pounds of leaf tobacco and 134,210,000 cigars were exported. Large exports of baled tobacco are also made from the east end of the island, most of which is sent to the United States.

Coffee was once extensively exported, having been introduced by the French from Martinique in 1727; but the trees have been mostly cut down and replaced with sugarcane, in consequence of the greater profitableness of that product, or destroyed by revolution. The mountain-sides and hill-lands of the east are especially favorable for coffee, and a quality as excellent as that of the famous Blue Mountain coffee of Jamaica can be readily grown. If the island should ever be properly developed, this will become a large and flourishing industry. There is still a considerable quantity of coffee grown, but it is nearly all consumed locally.

At the beginning of the present revolution the growing of bananas was a large and important industry, chiefly in the vicinity of Nuevitas and Baracoa, at the eastern end of the island. Many beautiful plantations of this fruit were seen by the writer, in 1895, upon the summits of the cuchillas of the east end, the products of which were conveyed by extensive wire trolleys down the cliffs to the sea. During the season, from February to December, an average of



HUTS ON SOLEBAD ESTATE, NEAR CIENFUEGOS

HORMIGUERA SUGAR-ESTATE, CIENFUEGOS

PINEAPPLES

BANANAS NEAR CIENFUEGOS

SCENES IN CUBA

a ship-load a day was exported from Baracoa. This fruit was the largest and finest of its kind received in the United States.

Captain John S. Hart of Philadelphia, who had large investments in this business, and was one of the largest importers of the fruit into the United States, finding his business destroyed by the outbreak of the revolution, promptly turned his ships into filibusters, and, after landing many cargoes of arms and ammunition, was eventually tried and convicted in a United States court.

Oranges of delicious flavor grow spontaneously in all parts of the island. No attention has been paid to their culture for exportation, however, since the development of the Florida fruit. Pineapples are grown and exported in western Cuba and the Isle of Pines. The island will undoubtedly become one of the greatest fruit-growing countries Mahogany, logwood, and fustic are also exported in small quantities. About fifty thousand dollars' worth was exported from Santiago in 1893.

In the provinces of Santa Clara, Puerto Principe, and Santiago the cattle industry, owing to the fertile grazing-lands, reaches large proportions, the product being large and fine animals of Spanish stock. Horses are also bred in all parts of the island. The Cuban horse is a stout pony, probably descended from Spanish stock, with the build of a cob, and a peculiar pacing gait which renders it exceedingly easy to ride. Goats and sheep do not flourish in Cuba, the wool of the latter changing into a stiff hair like that of the former. Poultry flourishes everywhere and is abundant in all markets.

In addition to the large estates of the planters, the island possesses many small farms of less than one hundred acres, devoted to fruit, market-garden and dairy products, for which there is a local demand. In 1895 there were over one hundred thousand farms, ranches, and plantations, valued at twenty million dollars.

The developed mineral resources of the island are iron ores, asphaltum, manganese, copper, and salt. A little gold and silver were mined in past centuries, but never in large quantities. In 1827 the silver-mines of Santa Clara yielded one hundred and forty ounces to the ton, but they were soon worked out. There is reason for believing that neither silver nor gold will be found in paying quantities.

Iron ore has thus far proved the chief metallic resource of Cuba. The iron-mines are located in the Sierra Maestra, a few miles east of Santiago de Cuba, and are of great importance. These are owned by American companies, which have invested extensive capital in opening them and providing railways and piers for the shipment of the ore. The ores are mixed brown and red hematite, containing from sixty-five to sixty-eight per cent. of pure iron, which is considered very rich. They occur in the white limestone that incrusts the seaward face of the porphyritic and granitoid core of the Sierra Maestra up to a height of twenty-five hundred feet. The principal producers are the Juragua and the Spanish-American companies. The ore is brought down from the mines, some fifteen miles away, on railroad-tracks to piers at the seaside, where it is loaded upon steamers and shipped to the Bethlehem, Steelton, and Sparrow Point companies of this country, much of it being used for the manufacture of armor-plate. Just before the war broke out trial shipments of ore had been sent over to England, and strong hopes were entertained of establishing an extensive trade with that country. It may interest the reader to know that Santiago and the iron-mines of Juragua are the scene of the popular novel, "Soldiers of Fortune."

The pier of the Juragua Company at Baraqui cost two hundred thousand dollars, and has facilities for loading two- to three-thousand-ton steamers with ore in less than ten hours. The production of this company in 1890 was 362,068 tons, amounting to one fourth of the total importation of iron ores into the United States for the same period.

Very rich deposits of manganese occur west of Santiago, in the Sierra Maestra range, in the neighborhood of Ponupo. In 1895 a party of Pennsylvanians organized the Ponupo Mining Company and despatched the first ship-load of manganese ore to Philadelphia. They also completed a short railroad to connect with the Cabanilla and Maroto Railroad, which gave them rail facilities to Santiago Bay. The mines had a capacity of two hundred tons per day, and the demand for the ore from the United States was far beyond their power to supply. These mines were speedily closed by the insurgents, because they yielded a large tonnage royalty to Spain.

Asphaltum (*chapapote*) of unusual richness occurs beneath the waters of Cardenas Bay and in several other parts of the island in beds of late Cretaceous and early Eocene age.

In the vicinity of Cardenas asphaltum of several grades, some of superior quality, has long been mined for exportation. The deposits, four in number, are all submerged. One of these, in the western part of the bay, produces a very fine grade of practically pure asphaltum, used in the United States for the manufacture of varnish. This has been mined for the past twenty-five years by mooring a lighter over the shaft, which is from eighty to one hundred and twenty-five feet in depth below the water surface, varying with the rapidity with which the asphaltum is removed and replenished. The asphaltum is loosened by dropping a long iron bar with a pointed end from the vessel. After a sufficient quantity has been detached a common scoop-net is sent down and filled by a naked diver. The average quantity obtained is from one to one and one half tons daily, which formerly sold in New York for from eighty to one hundred and twenty-five dollars per ton. The material is very much like cannel-coal in appearance, but has a much more brilliant luster.

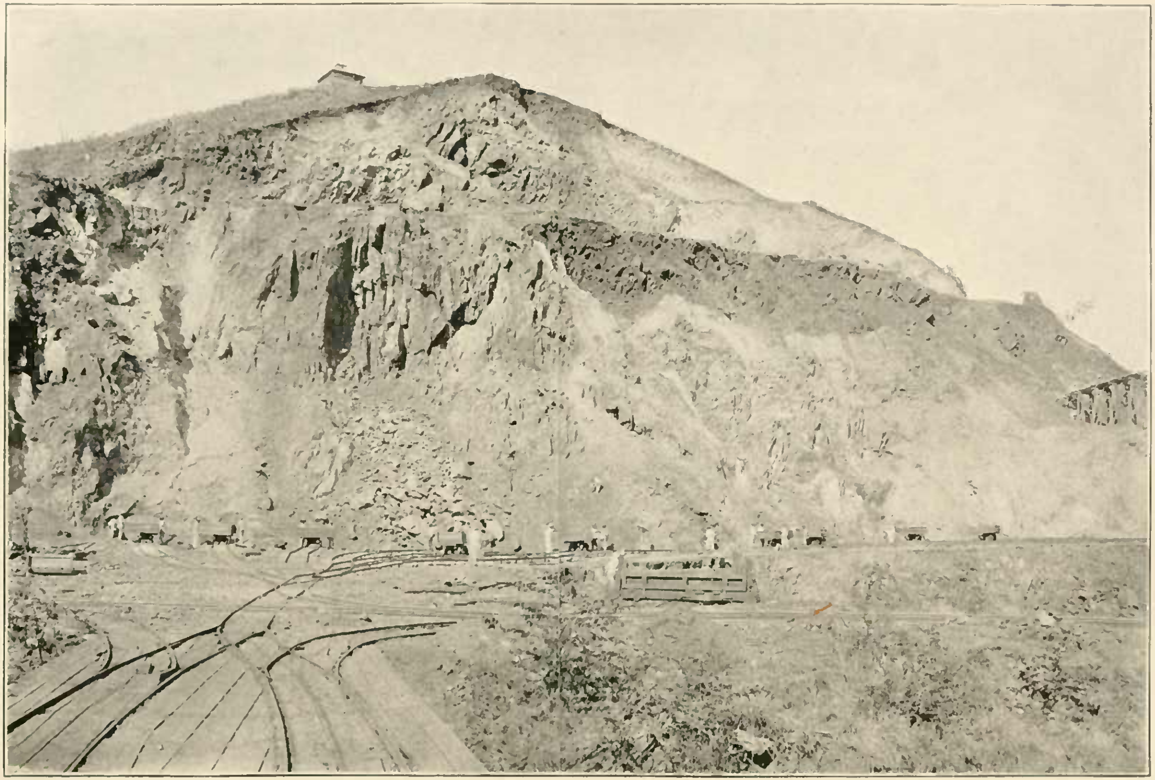
There are three other mines in this vicinity which produce a lower grade of asphaltum, such as is used for paving and roofing purposes. The largest of these is the

Constancia, situated near Diana Key, fifteen miles from the city of Cardenas. It has been in operation for more than twenty-five years, and although probably twenty thousand tons have been taken from it, it appears to be practically inexhaustible. Small vessels are moored over the deposit and loaded by the joint labor of their own crews. The deposit lies twelve feet beneath the surface of the bay, in an area about one hundred and fifty feet in circumference, and appears to be constantly renewed.

Near Villa Clara an unusually large deposit of this mineral occurs, which for forty years has supplied the material for making the illuminating gas of the city. American investors bought these mines the year before the revolution, and their investment up to date, which would otherwise have been profitable, has proved a total loss. The material at this locality is in a massive bed, some twelve feet in thickness, and resembles lignite. Similar outcrops occur between Villa Clara and Cienfuegos.

Asphaltum no doubt occurs in many other localities, notably near Guanabacoa, in Havana province; it has frequently been mistaken for coal, which does not exist upon the island.

Copper occurs at many places in Cuba; the writer has seen it disseminated in rocks of many localities in the eastern portion of the island. It was mined at the village of Cobre, about twelve leagues north of the city of Santiago, from 1524 to 1867. The mines of Cobre were once the greatest copper-producers in the world, and their old perpendicular shafts extend down for a distance of seven hundred feet. Formerly as much as fifty tons of ore were taken out each day, the richer portion of which was broken up and shipped to Europe, while the poorer part was smelted at the works, giving about fourteen per cent. of the metal. The books of the American consulate show that from 1828 to 1840 an average of from two to three million dollars' worth of copper ore was shipped annually to the United States from these mines. The extensive



MINE OF IRON ORE NEAR JURAGUA, TWELVE MILES EAST OF SANTIAGO DE CUBA

plant of these mines, comprising a large village and a railway leading down to Santiago, is still well preserved, but the mines are now filled with water and abandoned. It is questionable whether they can ever be profitably reopened, and even if they should be, their product, large as it seemed in former years, would be trivial in comparison with the enormous output of the mines of the United States. It is generally believed that large quantities of copper still remain unmined in this locality.

Salt occurs abundantly along the northern keys. Natural salt-pans have been formed along the margin of Cayo Romano, consisting of depressions from twelve to sixteen inches deep, separated from the sea by coral banks over which the waves wash in stormy weather. Then during the hot season the accumulated sea-waters are evaporated, leaving a perfectly crystallized bay of white salt. These natural pans of the Cayo Romano alone might supply far more salt than is needed for the ordinary consumption of the Cuban population.

Clays suitable for brick and roofing-tile abound in regions where the formations are of a non-calcareous character, especially the eastern provinces; but as brick enters very little into Cuban structures, these materials have not been extensively developed.

The universal building-material is limestone and lime products, such as plaster and cement, which everywhere abound. Silicious sand is rare, the building-sand of Havana being fine calcareous granules, the worn and comminuted debris of sea-shells.

The foregoing practically constitute the known mineral resources of Cuba, and I doubt, from my knowledge of the island, if any great expectations of others being discovered can be justified.

CHAPTER X

COMMERCE AND TRANSPORTATION

Harbors, railways, highways. Sources of wealth. The large commerce of the island. Commercial value of the island to Spain. Trade with the United States.

PERHAPS no country in the world is so blessed with harbors as Cuba. Not only are they numerous, but many of them are excellent, and afford convenient outlets for the products of the island and easy access for oceanic and coastal transportation. They are so conveniently situated as regards different portions of the island that the trade of Cuba may be said literally to pass out at a hundred gates. Most of the harbors are pouch-shaped inlets indenting the rocky coast, with narrow outlets pointed by elevated reef rock. The cause of this peculiar configuration is undoubtedly the superior resistance of the reef rock which forms the coastal points, and the correspondingly softer nature of the rocks behind it, out of which the bays are cut. Others are variations of this simple form, in which the cul-de-sac is modified by many smaller indentations.

The chief of these harbors on the north coast, beginning at the west, are Bahia Honda, Cabanas, Havana, Matanzas, Sagua, Nuevitas, Gibara, Nipe, and Baracoa; and Guantanamo, Santiago de Cuba, Manzanillo, Trinidad, and Cienfuegos, on the south. The last mentioned is said to be one of the finest harbors in the world. Notwithstanding their natural excellence, so admirably adapted for anchorage and protection from both storm and human invasion, they are but little improved, and are often allowed to fill up with refuse and sediment.

The narrowness of the island and the abundance of good harbors make nearly all parts of it convenient to maritime transportation. Not only Havana, but Cabanas, Cienfuegos, and Santiago are regularly visited by American, French, and Spanish lines of steamers, while coastal steamers circumnavigate the island, touching at the minor ports, which are also sought by many tramp steamers and sailing-vessels in search of cargoes.

The shipping-trade, both foreign and coastal, is extensive, the American tonnage alone amounting to one million per annum. About twelve hundred ocean vessels, steam and sail, annually clear from Havana, while the sugar-crop finds outlets at all the principal ports. Lines of steamers coast the island, the north coast being served from Havana and the south from Batabano, the southern entrepôt of Havana. The tonnage of Havana and eight other ports, for 1894, amounted to 3,538,539 tons, carried by 3181 vessels.

Although Cuba is so situated geographically as to command the commerce of the entire American Mediterranean, trade and communication with the adjacent regions, other than Mexico, have been neither cultivated nor encouraged. To reach any of the adjacent islands, such as Jamaica,—each less than one hundred miles distant,—it is usually necessary for the Cuban to proceed first to New York and thence to his destination. A perpetual quarantine appears to exist against the island on the part of all the neighboring West Indies, especially the English islands. The completeness with which Cuba is isolated commercially is illustrated by the fact that not even the Havana cigar, the most far-reaching of its products, can be found in any of the Caribbean cities, except those to the east in the track of European steamers plying to Havana.

The public railways of Cuba aggregate about one thousand miles, a larger part of which is comprised in the United System of Havana, extending from that city west and east through the tobacco and sugar districts of the Vuelta Arriba and Vuelta Abajo, and connecting it within a day's ride with the principal cities west of Cienfuegos and Sagua la Grande. The western terminus of this system is Pinar del Rio, one hundred and six miles from Havana; the eastern terminus, Villa Clara, is about one hundred and fifty miles distant. One of the lines of this system runs due south across the island from Havana to Batabano, for the purpose of making connections with the south-coast steamers at that point. Other short lines run to Marianao and Las Playas, eight miles west, and to Guanajay.

There are practically two parallel lines from Havana to Colon and Matanzas. The more northern is used for through passenger service. The southern line serves the important towns in the southern sugar district, such as Bejucal, San Felipe, Guines, La Catalina, La Union, and Corral Falso. Lines also extend southward from Matanzas to La Union, and from Cardenas to Murga; from Cardenas to Yagua Ramas; from La Isabella, at the mouth of the Rio Sagua la Grande, by way of the town of Sagua la Grande to Santo Domingo and Cruces, and from Palmira to Cienfuegos.

Another east-and-west system, nearly one hundred miles in extent, runs from Caibarien to Cifuentas, within ten miles of the Sagua la Grande branch of the United System of Havana. If this gap were closed the total eastward extension of railways from Havana would be nearly two hundred and fifty miles.

In the portion of the island east of a line drawn from Sagua la Grande to Cienfuegos are numerous short, independent lines running from seaports to the interior. The largest of these is the Caibarien system above enumerated, which has many small branches. On the opposite or south coast another short road of less than twenty miles runs

MORRO CASTLE FROM THE EAST

PANORAMA OF THE PRADO

HAVANA

from Casilda through Trinidad northward. East of this longitude an independent road twenty-five miles long connects the interior city of Sancti Spiritus with Las Tunas. Just opposite on the north coast are five short lines, two of which have ramifying branches radiating out from the town of Yaguajay. Still eastward a military line thirty-two miles long runs north and south across the island along the Moron-Jucara *trocha*. The next railway is encountered fifty miles east of the latter, running in an east direction for thirty miles between Puerto Principe and the sea-coast near Nuevitas. From the latter place through the eastern part of Puerto Principe and Santiago provinces no railways are found until reaching Santiago de Cuba, on the south coast, from which three short lines radiate: one northwest to the village of Cobre, ten miles distant; another due north twenty miles to San Luis; and another eastward along the coast toward the Juragua iron-mines. The most eastern railway of Cuba connects the city of Guantanamo with the suburb of Jamaica, six miles north, and La Caimanera, the seaport, about ten miles south.

The train service from Havana, so far as the first- and second-class coaches are concerned, is good, the cars usually being American-built, and upholstered with wicker seats, in harmony with the climate, and the officials attentive and accommodating.

On the various sugar-estates narrow-gage roads are in extensive use for the handling of cane, and often form means of communication with the interior in connection with coasting-steamers and the broad-gage roads. These narrow-gage roads are of much greater extent than might be supposed. The large estate called Constancia, for instance, has more than forty miles of such road, and many have more than twenty miles.

Good highways are both short and few. It is a bitter comment on Spanish rule to point out that common roads for wheeled vehicles hardly exist, except in the near vicinity of the larger towns. In past centuries a few good roads of the class called *camino del rey* ("the king's highway") were established, leading from Havana into Pinar del Rio, and from a few interior cities to their entrepôts. A more or less continuous highway of this kind also extends through the interior from Havana to Santiago. The "royal road" is merely a broad strip of country, sometimes fenced by cactus and barbed wire, and passable on horseback or by ox-carts in the dry season. Aside from these roads, which were absolute necessaries, the government has constructed but few highways leading into the country through or around the island, and hence inland communication is much impeded. Had a more far-sighted policy of road-construction been undertaken, such as has been carried out by England in the adjacent island of Jamaica, Spain would have been in less danger of losing her colony, the lack of good military roads having been one of the factors which have made possible the success of the present revolution. The city streets are usually fair, and many pleasant suburban drives are possible. The only time in which hauling can be done to any extent is during the long dry season, when the field-roads made by the sugar- and tobacco-estates can be traversed by great two-wheeled carts with four oxen. Two days of rain stop traffic in all directions. The opportunity for the building of common roads is large, and in most places there is plenty of stone for the purpose. The roads cross rivers, etc., by fords which are impassable soon after the rains set in; and although the streams are neither large nor very numerous, the necessity for bridges is great.

There were about 2810 miles of telegraph line in 1895, including nearly 1000 miles of cable, connecting the cities of the south coast and the Isle of Pines with Havana via Batabano.

Foreign cables run from Havana to Key West (two lines), from Santiago to Jamaica, these connecting with the British cables to Bermuda, Halifax, and Europe, and from Guantanamo to Mole St. Nicolas, connecting with Porto

Rico, the Windward Islands, and South America; and to New York via Cape Haitien. Nearly all of these cables were cut by the Americans, as a war measure, early in the summer of 1898, in order to isolate the Spanish forces on the island.

Before the latest war broke out, the wealth and commerce of Cuba were derived from one hundred thousand ranches, farms, and plantations, valued at $200,000,000, which, besides supplying the food necessities of the island, with the exception of salt meats and breadstuffs, yielded a surplus valued at $90,000,000 for export. This consisted mainly in enormous products of sugar and tobacco, which constituted ninety per cent. of the total exports. The product of sugar in the fiscal year 1892–93 amounted to 815,894 tons; in 1893–94, 1,054,214 tons; in 1894–95, 1,004,264 tons; and in 1895–96, 225,221 tons; all of which, except 30,000 tons per annum, was exported.

The commerce of Cuba is large in proportion to the population. It consists of exports of raw material. The imports are largely foods, machinery, hardware, leather goods, woodenware, and all kinds of manufactured articles used by a people who manufacture nothing.

The commerce of the island is best illustrated by a normal year. In 1892 the exports were valued at $89,500,000; the imports at $56,250,000. The balance of trade in favor of the island was, therefore, $33,250,000. This could be maintained under ordinary conditions of government, and increased by creating trade with adjacent islands. Of the exports $85,000,000 were classified as vegetable, $3,500,000 as mineral, and $750,000 as animal. The vegetable exports included 241,300 bales of tobacco (one bale=110 pounds), 155,000,000 cigars, and 1,000,000 tons of sugar. The minor exports included under the above heads were: rum (10,000 pipes), beeswax, bananas, honey, mahogany and other woods, valued in all at $2,000,000.

The essentials of this commerce are: (1) a large balance of trade in favor of the island; (2) the preponderating consumption of the exports by the United States; (3) the division of the imports between the United States, Great Britain, and Spain (the trade with the latter being maintained by discriminative duties against the other countries); (4) the absence of trade with the neighboring regions—except the United States—of which the island is the natural commercial center.

The financial value of Cuba to Spain has been in the absorption of all the balance of trade by Spanish merchants, and the personal profits derived by the Spanish civil and military officials. Although Spanish trade with Cuba has been gradually declining, its value in the past is shown by the fact that, in 1854, Spain's exports to Cuba exceeded those sent in 1792 to all her American colonies, which then included nearly half the settled hemisphere. The gain of the merchants of recent times included the profits to the shoppers of Cadiz and Barcelona, who sent annually to Cuba articles valued at $25,000,000, and those to the local merchants, who absorbed annually the $30,000,000 representing the balance of trade in Cuba's favor.

In addition to the personal enrichment of intransigent Spanish citizens, pensioners, and officials, during the present century, Cuba has contributed immense sums directly to the Spanish treasury. Over $5,000,000 was officially given to the Peninsula during the Napoleonic wars, besides personal contributions from the islanders of the same amount. From 1827 to 1864 an aggregate of $89,000,000 was sent in annual instalments, reaching, in 1860, as high as $29,500,000. Spain may have spent these sums and more in the maintenance of her authority over the island; but this should be charged to her own account rather than to that of Cuba. Since 1867, little or no money has been contributed to the royal treasury; but the Spaniards have still continued individually to profit enormously by the salary list and compulsory trade regulations.

It is estimated that the United States consumes from eighty to ninety per cent. of the entire exports of Cuba;

in fact, nearly everything the island produces except some of the cigars, which are world-wide in their distribution. In return for this outlay, however, Cuba purchases only one fourth of her goods from this country, including principally necessaries which cannot be procured from Spain. Furthermore, our trade with Cuba is restricted by the fact that we are the only nation of commercial importance against which the rates of the maximum tariff are enforced. As these rates are in some cases much higher than the conventional duties granted the second- and third-class tariffs, our products have to that extent been placed at a disadvantage.

The trade of the United States with Cuba, which has recently been summarized by Mr. John Hyde, statistician, reached its high-water mark in 1892–93, when it amounted to $102,310,600, the ratio of imports, $78,706,506, to exports, $23,604,094, being approximately as 10 to 3. This total was almost equal to that of our entire Asiatic trade, was nearly four times that of our trade with China or Japan, and thirteen times that of our trade with Russia, while it even exceeded the grand total of that with Austria-Hungary, Russia, Sweden and Norway, Denmark, Turkey, Greece, Italy, Switzerland, and Portugal combined. Nor does this contrast derive its strength mainly from the largeness of the imports. The exports themselves, products of our own country, were nearly twice as great in point of value as our exports to Italy, over three times as great as those to China and Japan combined, nearly six times as great as those to Sweden and Norway, and over ten times as great as those to Russia; they amounted to almost half as much again as our total exports to Asia, and even exceeded our total exports to South America, exclusive of Brazil.

So much for the aggregate. What of the different items of which it is composed? These may best be considered in detail if presented in tabular form, and the accompanying tables will accordingly show the principal exports to the United States from Cuba and the principal imports of

Values of domestic merchandise imported from the United States to Cuba during the ten years ending June 30, 1897.

Articles.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.
Animals, live	$8,778	$14,264	$12,820	$42,631	$25,513	$29,411	$42,508	$24,163	$121,881	$433,089
Animal products	2,691,567	3,301,509	2,957,126	2,840,649	4,289,306	5,718,101	5,176,314	3,270,497	2,470,505	2,429,113
Breadstuffs	1,387,752	1,336,047	1,520,617	874,979	2,305,031	3,512,207	3,164,541	1,569,008	774,792	888,123
Coal and coke	460,584	581,094	722,856	776,526	1,041,751	931,571	918,528	1,103,765	626,935	639,427
Cotton, and manufactures of	112,281	126,180	140,318	102,173	114,112	148,670	120,183	67,441	63,834	67,452
Chemicals, dyestuffs, etc.	219,389	249,710	277,171	259,028	387,377	286,562	291,916	272,269	197,054	195,950
Hay and straw	29,161	31,675	20,853	24,585	45,395	54,791	87,700	43,869	85,652	49,728
Iron and steel, and manufactures of.	1,257,423	1,988,018	2,709,904	3,120,276	4,410,798	6,691,929	4,696,327	2,476,779	769,356	426,173
Manufactures	582,003	712,854	948,740	836,180	1,090,449	1,431,849	1,146,480	855,079	361,254	334,572
Manufactured products	322,039	457,355	567,235	581,782	516,394	329,525	297,325	133,164	110,205	94,404
Provisions, other than breadstuffs or animal products	491,746	523,661	441,130	410,011	757,768	1,315,097	1,052,767	651,357	494,940	873,407
Oils	432,620	410,203	601,716	384,121	511,749	548,092	556,139	510,356	354,838	312,526
Paper, and manufactures of	226,600	245,078	321,589	202,124	210,509	198,970	192,503	147,329	88,909	272,551
Wood, and manufactures of	1,320,536	1,111,002	1,208,733	1,191,676	1,528,983	1,881,095	1,571,297	770,064	490,396	412,651
All other	181,645	208,548	218,701	282,864	387,276	526,224	540,709	638,120	301,797	170,591
Total domestic exports	$9,724,124	$11,297,198	$12,669,509	$11,929,605	$17,622,411	$23,604,094	$19,855,237	$12,533,260	$7,312,348	$7,599,757

Values of merchandise exported to the United States from Cuba during the ten years ending June 30, 1897.

Articles.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.
Animal products	$238,687	$308,697	$338,236	$439,807	$279,282	$292,305	$187,038	$77,484	$184,281	$872,392
Chemicals	17,201	36,700	51,830	372,212	276,211	383,786	141,349	81,424	32,312	13,122
Wines, spirits, etc.	44,969	45,780	45,100	54,586	53,864	43,022	20,131	(*)	(*)	16,247
Manufactured products	94,620	79,830	105,289	113,025	12,495	672,370	208,321	(*)	(*)	29,412
Ores, metals, and manufactures of.	326,162	588,245	619,201	932,670	723,279	34,527	11,827	294,908	521,310	658,605
Fruit, vegetables, etc.	1,519,408	1,649,633	1,852,997	1,805,250	2,264,056	2,464,191	1,985,715	989,738	1,070,490	354,590
Sugar, molasses, etc.	38,680,821	39,644,362	39,099,802	46,830,047	62,642,686	61,718,722	64,296,266	40,872,497	24,231,309	11,995,179
Tobacco	7,941,516	9,261,441	11,088,240	10,484,604	10,802,690	11,727,088	7,881,468	9,311,980	12,707,352	4,277,281
Wood, and manufactures of	399,427	432,187	528,929	585,485	530,398	1,074,310	684,488	640,774	531,349	67,333
All other	56,276	83,748	71,967	96,709	346,710	296,185	261,658	602,454	739,327	122,654
Total imports	$49,319,087	$52,130,623	$53,801,591	$61,714,395	$77,931,671	$78,706,506	$75,678,261	$52,871,259	$40,017,730	$18,406,815

* Included in other classifications.

domestic merchandise from the United States to that island for the ten years ending June 30, 1897.

The principal article exported is sugar, the largest exportation of which was in the fiscal year 1893–94, when it amounted to 949,778 tons of 2240 pounds, or over 1,000,000 tons of 2000 pounds. This was equivalent to thirty pounds or more per capita of our population, and constituted about one half of our total consumption. The next item in importance is tobacco, the exports of which reached their highest figures in 1895–96, when they amounted in point of value to considerably more than one third of the total value of our own tobacco-crop. The only other class of exports that calls for special mention consists of fruit and vegetables, which had a value in 1892–93 of nearly $2,500,000.

The principal articles imported from the United States are, as will be seen from the table, meats, breadstuffs, and manufactured goods, the trade in all of which articles was rapidly assuming very large dimensions at the outbreak of the insurrection. Coal, coke, and oils were also imported in considerable quantities; indeed, so diversified were our exports that there is no considerable section of the entire country that was not to a greater or less degree benefited by the market for our agricultural, mineral, and manufactured products that existed in Cuba.

Between 1893–94 and 1896–97, however, our imports from Cuba suffered a decline of 75.7 per cent., and our exports to the island a decline of 61.7 per cent., the imports being reduced to less than one fourth and the exports to little more than one third of their previous volume. During the first year of the insurrection our trade fell off over $30,000,000, during the second year a further sum of $18,000,000, and during the third year a still further sum of $21,000,000, making a total decline of $69,000,000 in the annual value of our foreign trade, and of a branch of it, moreover, that is carried almost entirely in American bottoms.

Is it any wonder that, entirely aside from the humanitarian considerations that have prompted the United States government to seek to put an end to the unfortunate conditions so long prevailing in the island, some justification for such intervention should have been found in the well-nigh total paralysis of our commercial relations with that once extensive and profitable market?

A COUNTRY HOUSE

A CUBAN PEASANT HOUSE OF THE BETTER SORT

PEASANT HOLDING A WOODEN PLOW

SCENES IN CUBA

CHAPTER XI

THE PEOPLE OF CUBA

Misconceptions concerning the people of Cuba. Degrees and variety of people. The five classes of people. The Spaniards and other foreigners. The white Cubans. Effects of disenfranchisement and conscriptions. Hospitality and courtesy. Strong family attachments. The Cuban women. The laboring classes. The colored and black population. No danger of negro supremacy.

PERHAPS there is no question which it is so difficult to determine as that of the population of Cuba. It is impossible to obtain accurate statistics, owing to the fact that no reliable census has been taken by the government for many decades. All figures which may be presented are intelligent estimates, and great variation is found in those given by different authorities.

The latest census of Cuba, published December 31, 1887, gives the population as follows:[1]

PROVINCES.	AREA, SQ. KM.	WHITE.	COLORED.	TOTAL.	PER CENT. OF COL'D RACE.	DENSITY.
Havana	8,610	344,417	107,511	451,928	24	52.49
Pinar del Rio	8,486	167,160	58,731	225,891	26	26.62
Matanzas	14,967	143,169	116,409	259,578	45	17.34
Santa Clara	23,083	244,345	109,777	354,122	31	15.34
Puerto Principe	32,341	54,232	13,557	67,789	20	2.10
Santiago de Cuba	35,119	157,980	114,399	272,379	42	7.76
Total	122,606	1,111,303	520,384	1,631,687	Av. 32	Av. 13.31

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[1] Published in No. 3, vol. xi, of the "Revista de Cuba."

The population of the principal towns in 1892 has been estimated as follows:

	TOWNS.	POPULATION.		TOWNS.	POPULATION.
West	Havana	200,000	Central	Puerto Principe	46,640
	Guanabacoa[1]	29,790		Cienfuegos	27.430
	Regla[1]	11.280		Santo Espiritu	32,600
	Matanzas	27,000		Trinidad	27,640
	Pinar del Rio	21,770	East	Santiago	71,300
	Colon	20,400		Holguin	34,760
	Cardenas	23,680		Manzanillo	23,200

The population of Cuba previous to the late insurrection was about the same as that of Vermont, Virginia, North Carolina, or Wisconsin, and averaged about thirty-six to the square mile.

The quality and character of the inhabitants of Cuba have been so variously pictured during the recent years of conflict that the public mind has been greatly confused on this subject. The Spanish legation to the United States naturally endeavored to present the character of the Cuban people in its worst light. Furthermore, the North American business men and tourists who visit the island are prone to judge superficially its inhabitants by the lack of outward appearances of energy which is everywhere found in the tropics. I fear, therefore, that my estimates of the Cubans may not be in harmony with many current impressions, but I shall endeavor to judge them as fairly as possible in the light of a broad experience with the varied people of all parts of the Union and of the other West Indian Islands and Spanish-American countries.

Contrary to what has been represented, we have found them as a class neither ignorant nor lazy. The higher classes, as in New England, Pennsylvania, Minnesota, and Louisiana, are gentlemen of education and refinement, skilled in agriculture, and often learned in the arts and professions. Some dwell in picturesque cities, the largest of which, Havana, with the refinement and gaiety of a European capital, has a population numerically equal to that of Washington. Santiago, the eastern city of picturesque villas, is (or was) as populous as Atlanta, Nashville, Lowell, or Fall River. There are many other cities, each with more than twenty-five thousand inhabitants. The remainder live upon over one hundred thousand farms, ranches, and plantations.

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[1] Suburb of Havana.

The people of Cuba may be classified into five distinct groups, as follows: white Cubans, black Cubans, colored Cubans, Spaniards, including officials and intransigents,[1] and foreigners other than Spanish. The white Cubans are the owners of the soil; the black and colored form the laboring classes; the Spanish officials, the governing class; the Spanish intransigents, the commercial class; while the other foreigners are birds of passage whose interests in the island are purely financial.

It is difficult to ascertain or even estimate the numerical proportion of these classes to one another. The entire foreign element, exclusive of about thirty thousand Chinese males and the army, probably does not exceed one hundred thousand people. The civilian foreigners, in most cases, are estimable people, the better class of whom are engaged in banking, trade, and sugar-planting. They have no other interest in the welfare of the country than gain of wealth, and have no intention of permanent residence. Hence they should not be considered in any manner as representative of the Cuban people, although their voice has, in recent political events, almost drowned that of the true inhabitants. In addition to the army of soldiers, there is a vast horde of subordinate officials, all Spaniards, who collect the customs and attend to other minor executive duties.

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[1] To the Cubans the foreign Spanish are known as "intransigents," a local word signifying transients. Between the two classes, governors and the governed, owing to the despotism of the former, a bitter hatred has existed since 1812, and has been more strongly accentuated since the surrender of Zanjon, in 1878, when the rebellious Cubans laid down their arms under unfulfilled promises of autonomy and local self-government, similar to schemes lately presented.

The lower classes of the Spanish male population of Havana—porters, draymen, and clerks—are organized into a dangerous and oftentimes uncontrollable military force, known as the Volunteers, who, while never having been known to take the field, are a serious menace to the peace of the city, being feared equally by the authorities, over whose heads they hold the threat of mutiny, and by the resident and unarmed Cubans, over whom they hold the threat of massacre. Up to date the record of this organized mob has been a series of horrible crimes, such as shooting down a crowd of peaceable citizens as they emerged from the theater, firing into the office and dining-room of a hotel, assaulting the residences of Cuban gentlemen, and in 1871 forcing the authorities to execute forty-three medical students, all boys under twenty, because one of them had been accused of scratching the glass plate on a vault containing the remains of a Volunteer. Fifteen thousand Volunteers witnessed with exultation this ignoble execution.

Although of Spanish blood, the Cubans, through adaptation to environment, have become a different class from the people of the mother-country, just as the American stock has become differentiated from the English. Under the influence of their surroundings, they have developed into a gentle, industrious, and normally peaceable race, not to be judged by the combativeness which they have developed under a tyranny such as has never been imposed upon any other people. The better class of *Camagueynos*,[1] as the natives of the interior are fond of calling themselves, aside from the customary number of idlers and spoiled sons of wealthy parents one sees in Havana, are certainly the finest, the most valiant, and the most independent men of the island, while the women have the highest type of beauty. It is their boast that no Cuban woman has ever become a prostitute, and crime is certainly rare among them.

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[1] From Camaguey, the Cuban name of an east-central province.

While the local customs, habits, and religion of these people are entirely different from ours, owing to race and environment, they have strong traits of civilized character, including honesty, family attachment, hospitality, politeness of address, and a respect for the golden rule. While numerically inferior to the annual migration of Poles, Jews, and Italians into the eastern United States, against which no official voice is raised, they are too far superior to these people to justify the fears of those who have been prejudiced by the thought that they might by some means be absorbed into our future population.

No cause in history has been more just than theirs, no self-sacrificing heroism greater, and yet the world, during all the agitation of the past three years, has known little of them, so completely have they been cut off from communication, while the little which has been heard has found its outlet through the stronghold of their enemies.

Notwithstanding the disadvantages of disenfranchisement and conscription of estates under which the Cubans have labored, they have contributed many members to the learned professions. To educate their sons and daughters in the institutions of the United States, England, and France has always been the highest ambition of the creoles of Cuba. The influence of their educated men is felt in many countries, a most distinguished professor of civil engineering, two leading civil engineers of our navy, and the most eminent authority on yellow fever in our country belonging to this class. Among the Cubans of the past who have distinguished themselves in literature, science, and art may be mentioned Heredia, Ramon, Zambeau, the famous medical scientist, Terésa Montes de Oeca, an admirable poetess, and Gertrudis Gomez de Avellaneda, another delightful lyrist. Thousands of these people, driven from their beloved island, have settled in Paris, London, New York, Mexico, and the neigboring West Indies, where they hold honorable positions in society; and even the exiles of the lower classes, with their superior agricultural arts, have been eagerly welcomed in places like Jamaica, Mexico, and Florida, which hope to share with Cuba the benefits of tobacco-culture.

The Cubans, however, as a class, high and low, are a simple-hearted people, hospitable to all strangers, especially Americans. The men of the better classes are well bred and educated, and even the peasantry have a kindliness and courtesy of manner that might put to blush the boorish manners of some of our own people; and while the young men of the cities do not seem to attain to a very full size or robust development, some of the finest-formed and best-developed men, particularly on the Isle of Pines, are to be seen among the peasantry. Owing to the influence of the climate and also the peculiarities of their government, which offers no paths of ambition to the aspiring youth, the men are generally listless, indifferent, and lacking in the energy peculiar to people farther north.

Hazard has correctly said that a more kind-hearted, hospitable people than the Cubans, particularly to *los Americanos*, it would be difficult to find. No trouble is too great for them if you can make them understand what you desire. Many of them speak English, more speak French, which in fact is the household language of the island, and many of the young men have been educated in the United States.

The Cuban woman to the manner born is a very fascinating creature. She is elegant, walks gracefully, has pretty features, beautiful eyes and hair, and fine teeth. Coquettish as a young girl, she is generally both devoted and blameless as a wife and mother.

Family ties are stronger among the Cubans than with us, and the affection and pride of relationship please every stranger who gains admission to the households of the people. The marriage rite is encouraged and observed on

A CUBAN TYPE

this island, and while the men as a class are no more continent than in Southern climates generally, the women, as a rule, are loyal and virtuous. This respect for the marriage tie alone shows the superiority of the Cuban character over that of the French and English West Indian colonies, where, as we will show, illegitimate births are the rule and not the exception.

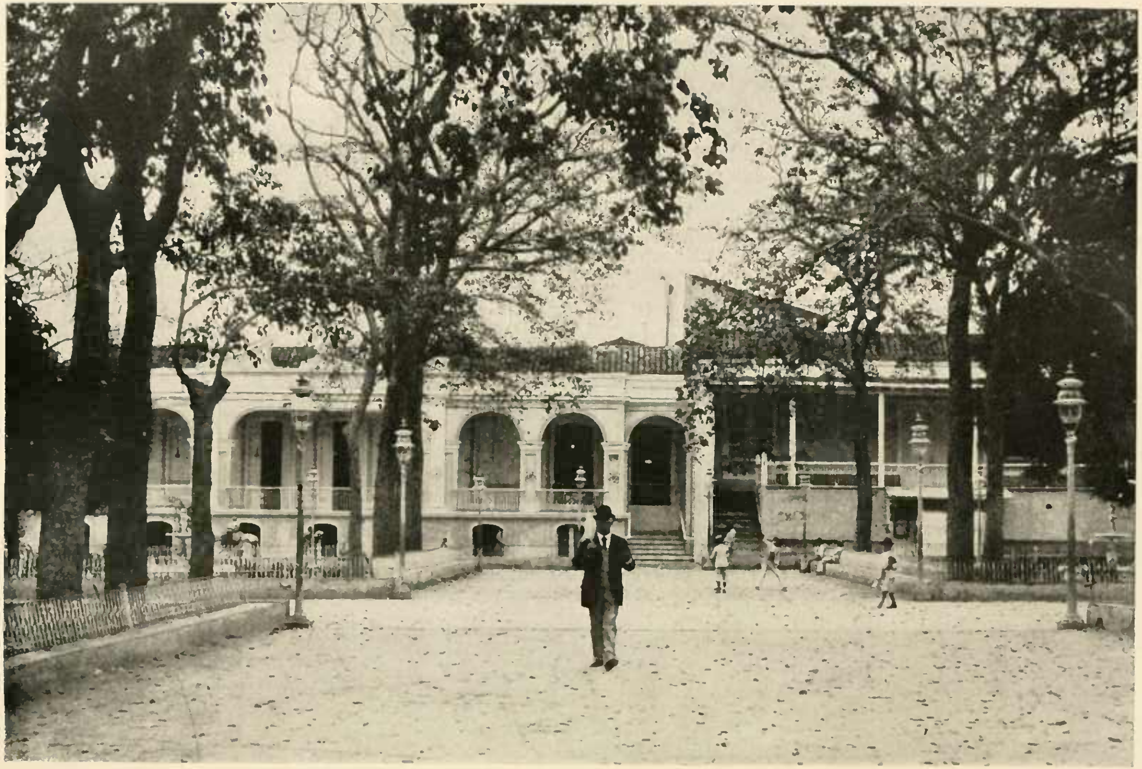
The Cubans are mostly found in the provinces and provincial cities, especially in Pinar del Rio and the eastern provinces of Santa Clara, Puerto Principe, and Santiago. Seventy-five per cent. of the native population of the island is found outside of the Spanish capital of Havana, which, being the seat of an unwelcome foreign despotism, is a place where the full expression of Cuban life and character is held in subjection. While the Havanese have had the freest communication with the United States during the last three years of the revolution, Americans have had little opportunity to hear from the true white Cuban population.

The laboring classes on the sugar-plantations are largely negroes and Spanish peasants, many of the latter having been introduced since the ten years' war and the abolition of slavery. After the emancipation of the negroes in 1878, like the Southern States and the other West Indies, Cuba had to undergo a reorganization of its industrial system; and it may be said, to its credit, that the change was accompanied by far less distress and social debasement than in the other regions mentioned. At first, in the universal fear that the freedmen would not work, coolies and Chinese were imported in large numbers; but the former soon returned home, and the importation of the latter did not long continue, although a large remnant of them still remains upon the island.

In addition to the white creole population, thirty-two per cent. are black or colored—using the latter word in its correct signification, of a mixture of the black and white races. This black population of Cuba has been as little understood in this country as has been the creole, especially by those who have alleged that in case Cuba should gain her freedom the island would become a second Haiti. The black and colored people of the island, while low as a class, are more independent and manly in their bearing, if not as literate, as their brethren of the United States, having possessed, even before slavery was abolished on the island, the four rights of free marriage, of seeking a new master at their option, of purchasing their freedom by labor, and of acquiring property. While the negro shares with the creole the few local rights possessed by any of the inhabitants, his social privileges are greater than here, although a strong caste feeling exists. Miscegenation has also produced many mulattos, but race mixture is no more common than in this country.

The colored people of Cuba belong to several distinct classes. The majority of them are descendants of slaves imported during the present century, but a large number, like the negroes of Colombia and the maroons of Jamaica, come from a stock which accompanied the earliest Spanish settlers, such as Estevan, the negro, who, with the two white companions of Cabeza de Vaca, first crossed the United States from the Gulf of Mexico to California in 1528–36. The amalgamation of this class in the past century with the Spanish stock produced a superior class of free mulattos of the Antonio Maceo type, unlike any people in this country with which they can be compared. The current expressions of fear concerning the future relations of this race in Cuba seem inexplicable. The slaves of the South were never subjected to a more abject servitude than the free-born whites of Cuba, for they at least were protected from arbitrary capital punishment, imprisonment and deportation without form of trial, such as all white Cubans are still liable to.

Another virtue of the Cuban negro is that *he* will work. We italicize the masculine pronoun, because, as we will later show, the male negro of the other West Indies, ex-



THE SAN CARLOS CLUB, SANTIAGO DE CUBA

cept Porto Rico, usually occupies the same indolent position in human society as that ordinarily attributed to the drone of the beehive. In Cuba he works the cane-fields, loads the ships, carries burdens, and performs all of the harder tasks of manual labor not as yet usurped by woman in the United States, but completely monopolized by her sex in the other West Indies. I do not mean to say that many of his race are not depraved or dissipated, as elsewhere, but I am of the opinion that the Cuban darky is the equal as a laborer of his brother in our Southern States, and superior to the darkies of the other West Indian Islands.

The experiences of the past have shown that there is no possibility of Cuba becoming Africanized without constant renewal by immigration. The five hundred and twenty thousand people of African descent, one half of whom are mulattos, represent the diminished survival of over one million African slaves that have been imported. The Spaniards had the utmost difficulty in acclimating and establishing the black man. While Jamaica and other West Indian Islands are a most prolific negro-breeding ground, the race could not be made to thrive in Cuba.

Those persons who undertake to say what the social conditions of Cuba would be under independence should look elsewhere than to Haiti for a comparison. Even were the population of Cuba black, as it is not, the colony of Jamaica would afford a much better contrast. This island, only about one tenth the size, and composed of mountainous lands like the least fertile portion of Cuba, has a population wherein the blacks outnumber the whites forty-four to one; yet, under the beneficent influence of the English colonial system, its civilization is one of a much higher scale, possessing highways, schools, sanitation, and other public improvements equal to those of our own country, and such as have never been permitted by Spain in Cuba.

Another fact which will stand against the Africanizing of Cuba is that it is highly probable that many of these five hundred thousand colored people have been destroyed during the latest insurrection. A large number of them had but recently been released from the bonds of slavery, and were naturally the poorer class, upon which the hardships have mostly fallen, being generally the field-hands in the sugar districts of Havana, Matanzas, and Santa Clara, where the death-rate of the terrible Weyler *reconcentramiento* has been greatest. Three hundred thousand of the five hundred thousand blacks belonged to these provinces, and of this number fully one half have been starved to death.

The population of Cuba has undergone great modification since the collection of the statistics given. Probably it has been reduced to not more than a million inhabitants by emigration of non-combatants, destruction in battle, official deportation of suspects and political prisoners, and by the reconcentration system. The rural population of the four western provinces of Pinar del Rio, Havana, Matanzas, and Santa Clara has been largely obliterated. Estimates of this extermination are all more or less conjectural, but the Bishop of Havana is authority for the statement that more than four hundred thousand people have been buried in the consecrated cemeteries.

CHAPTER XII

CUBAN CITIES: HAVANA

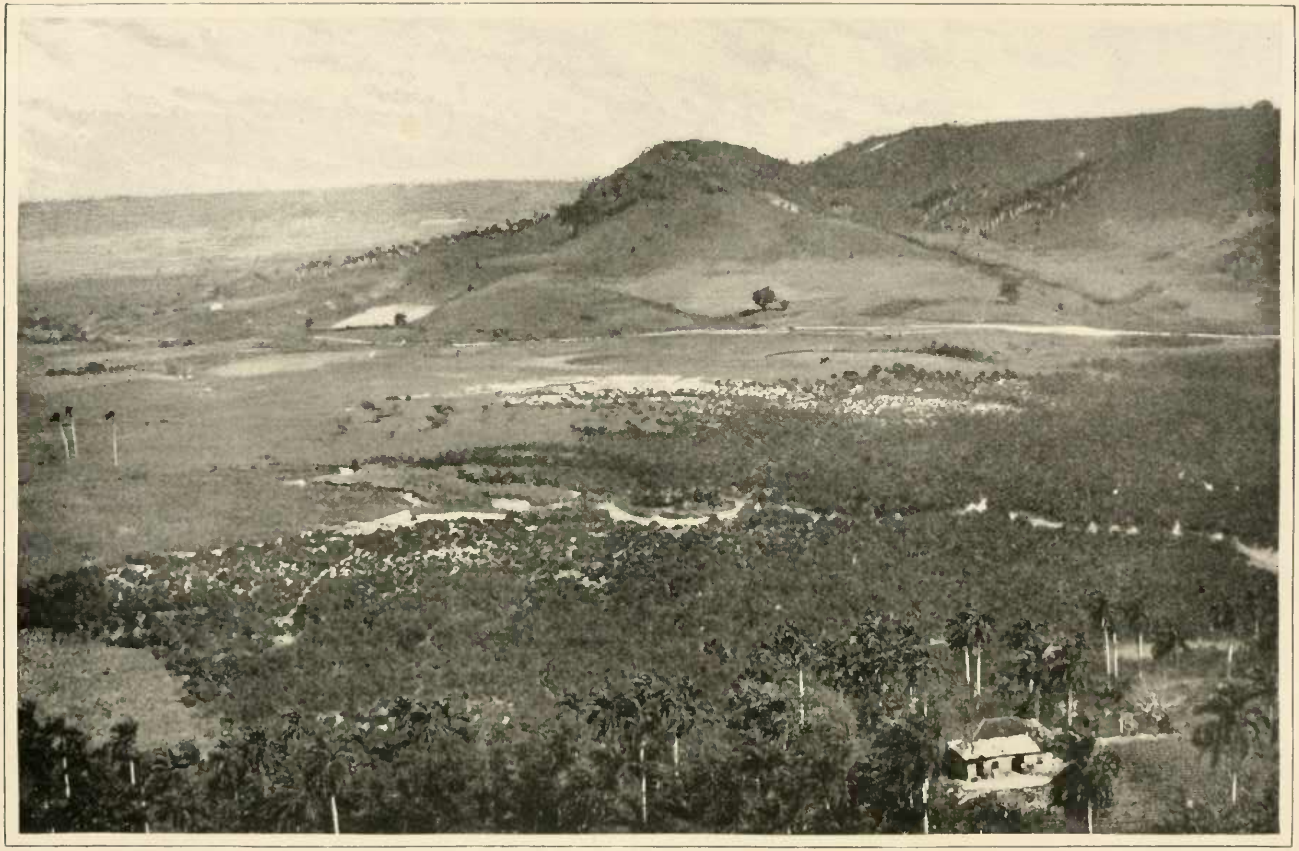
Large number of cities in proportion to population. Havana and adjacent towns. Imposing appearance from the sea, and picturesque location. The bay and shipping. Prevalent building-material and type of architecture. The central plaza. European aspect of the city. The Prado. Notable structures. Tomb of Columbus. Charitable institutions. Homes and private dwellings. The business streets. Street-cars and carriages. Places of recreation. Pinar del Rio. Cabanas and Mariel.

CUBA has a number of interesting cities and towns. The principal of these are Havana, Matanzas, Pinar del Rio, Cardenas, Puerto Principe, Cienfuegos, Santo Espiritu, Trinidad, Santiago, Holguin, and Manzanillo.

The number of cities seems large in proportion to the area and general population, and one wonders, especially in view of the absence of industrial establishments which would naturally segregate population, why in such a picturesque land so many people dwell in towns where unsanitary conditions prevail, and the houses, especially of the poor, are usually overcrowded. There are several reasons. In the first place, the people are naturally sociable and gregarious. The prevalent masonry construction is also expensive, and it is much easier for the poor man to occupy a house already built, although centuries old, than to pay for the erection of a new one. Furthermore, from the earliest days of settlement the town-dwelling habit has been the result of defensive necessity, and populations have found, during the many attacks both from without and within, that no better place of security could be found than the thick walls of the city houses. The ten years' insurrection also resulted in destroying most of the country homes of Cuba.

Havana, which bears upon its escutcheon, *Llave del Nuevo Mundo*, the "Key of the New World," as it was named by Diego Velasquez, the first governor of Cuba, is the political capital and principal city of Cuba. It is a picturesque and beautiful place, presenting, even in the midst of the most horrible tragedy of the century, the gay appearance of a European city. It should be remembered that in population, interest, customs, and dominant political feeling, the city (being the seat of the foreign government which rules the island) is thoroughly Spanish, and in this sense is not entirely representative of the local customs and sentiments of provincial Cuba. This city was founded early in the sixteenth century (about 1519), nearly one hundred years before the first colonization of our seaboard, and has interesting historical associations.

The entrance to Havana, approached from the Gulf of Mexico, presents a beautiful spectacle. A few hundred yards offshore the characteristic ultramarine blue of the deeper sea is succeeded by a narrow belt of beautiful pearl-green water bordering the shore and overlying the shallow banks of growing coral reef. In front stretches the beautiful Cuban coast and a full view of Havana and its surroundings. The entrance of the harbor is a narrow indentation into a straight shore-line. To the east the foliage-covered land, stretching toward Matanzas, abruptly rises from one to two hundred feet; and on the point made by the indentation of the bay stand the picturesque lighthouse and fortifications of Morro Castle, whose flying pennants announce to the distant city the approach of vessels. To the right the city, with the historic fort of La Punta on its extreme point, and lying on a low



THE YUMURI VALLEY NEAR MATANZAS, CUBA

plain, spreads out in a beautiful picture. The yellow-colored houses with their red-tiled roofs, mottled by green trees, and the glaring white rocks and surf, make a bright and airy picture in the tropical sunlight. The harbor is a quadrangle with its four sides indented by land, so that it has the outline of a dried hide. The upper left-hand arm of this, as one looks out toward the sea, may be imagined to represent the long and narrow outlet to the sea; the upper right-hand limb, a shallow and sickly swamp projecting to the northeast; the lower right-hand limb, the embayment, or *ensenada*, of Atares. Havana's water-front borders the western side, and Regla, the Brooklyn of Havana, lies opposite.

The bay was once much larger than at present, and is here and there fringed by plains of old alluvial sediment, upon one of which the city was first built. This beautiful landlocked body of water is alive with shipping. Steamers and war-vessels of all nationalities ride at anchor in the middle of it. The masts forming a forest on the eastern side are those of sailing-vessels, largely American, loading their cargoes of sugar at the wharves of Regla. There are many small local sailing-vessels, while hundreds of dories or feluccas with many-colored sails are constantly passing from place to place, carrying passengers from city to steamer or across to the fortifications. Large ferry-boats also cross between Havana and Regla. In the latter city are located most of the sugar warehouses, the bull-ring, and the principal railway-station. For a mile or more between this village and Morro Castle the precipitous cliffs of the east side of the harbor are surmounted by fortifications, known as the Cabanas, built of white masonry. In the southern end of the bay, where it is broadest and most shallow, rises a conical hill, Atares by name, which is also surmounted by antique battlements. Here Crittenden and other Americans of the ill-fated expedition of 1851 were shot. The Havana side of the harbor is bordered by a low and continuous sea-wall, with landing-steps protected by neat canopies, and a few steamer-slips, behind which is a handsome street parallel with the water-front, on which face many beautiful buildings and shady parks.

The city proper is on a low plain standing only a few feet above the sea, and was once inclosed by a medieval wall. It occupies a septagonal peninsula lying between the river Armendaris on the west, the sea on the north, and Havana harbor on the east. On the south and west it is backed by an amphitheater of pretty hills rising to the altitude of the Morro highland across the bay. On the westernmost of these are erected the conspicuous fortifications of Castillo del Principe, while others are overrun by suburban houses which have crept out in those directions.

One of the small feluccas speedily conveys the traveler to the Machina wharf, where polite officials attend to the formalities of landing. Neat victorias expeditiously conduct you, for the small sum of twenty cents, up the narrow, cobblestoned, medieval business streets to the hotels in the center of the city, the chief of which is La Gran Hotel Inglaterra. This hostelry is situated on the beautiful Plaza de Isabella, with trees, shrubs, and flowers, and surrounded by handsome, massive, two-story buildings with gigantic colonnades—suggestive, as a whole, of the wonderful white city which we built on Lake Michigan to commemorate the early history in which the discoverers of Cuba played so large a part.

The building-material of Havana is a peculiar loose-textured conglomerate of sea-shell, of a glaring white color, called *cantera*, somewhat more compact than the coquina of St. Augustine. This is hewn out with axes or sawed into great blocks, and laid in massive courses, the surface of which is afterward plastered or stuccoed. This, in turn, is variously colored by calcimining. Sometimes the surfaces are roughly stippled to imitate rubble-stone work. The prevalent colors used are yellow, white, and drab, relieved by darkish blue, deep Egyptian red, and a vivid yellow ocher. As in Spain and Mexico, the artisans make bold but pleasing combinations and ornate effects. Often, by fresco-shading, moldings, cornices, and masonry jointings are imitated. The whole has a remarkably massive and light-colored effect. In the old town the tall and low windows are protected by the projecting Moorish grating so common to Spanish architecture, which would give the houses a prison-like appearance were it not for the bright colors outside and in.

Toward evening the central plaza and adjacent drives are alive with splendid equipages, and horsemen showing the menage steps of the fine Andalusian chargers; and the benches and colonnades teem with well-dressed citizens in light attire of duck and flannels and hats of straw, or gaily uniformed soldiers, the whole making a picturesque and enlivening scene. Military assemblages of the Volunteers in the morning and bands of music at night add to the general air of gaiety.

The side of the square on which the Hotel Inglaterra is located is a magnificent avenue of unusual width, extending north and south, known as the Paseo or Prado, leading to the Gulf shore, and lined with imposing two-storied buildings of white, yellow, and drab colors.

Throughout the city, and especially this portion, there are many elaborate structures, including two theaters and numerous club-houses. The latter usually have superb assembly-rooms in their second stories, and belong to associations representing the different provinces of Spain, so that on certain nights of the carnival the passing stranger, who is always hospitably invited to view the spectacle, may visit a dozen large balls, and see hundreds of well-dressed dancers at each of them. The Havanese brag that the Teatro Taçon is the largest in the world; it certainly is the largest auditorium south of Cincinnati. Here the best actors and singers are seen and heard; for no great artists who have visited America, such as Nilsson, Patti, Salvini, Coquelin, or Duse, have neglected to pay Havana a week's visit. Here one week I witnessed the superb comedy of

Coquelin and Hading. The audience was brilliant with all that dress, jewels, and fair women could make it. One could readily believe himself in Paris. The next night was the closing Sunday of the carnival season. The fashionable world, which had filled the Taçon the week before, transferred its presence to the grand balls in the various club-houses, and the Taçon was filled by a frightful canaille, that indulged in the most licentious orgies. Negresses and mulattos from the smallpox and fever-laden slums, drunken sailors of all nations, and the scum of the male population of the city held wild revelry.

Other notable buildings are the large markets, the opera-house, the captain-general's palace, the hospitals, the university, the city prison, and several churches, including the cathedral. The many immense cigar-factories are by no means unattractive features. These are large buildings, resembling the factories of the village towns of New England, although more ornamental in architecture and surroundings.

The churches of Havana are not particularly numerous. The largest is the Merced, a cathedral in the rococo style, with handsome marble altars, mahogany and dark-colored marble furnishings, and a superb choir. It is surmounted by a large central dome and two short towers. This edifice is principally interesting because of the fact that it is one of the alleged resting-places of Columbus. The disputed remains are in a small urn deposited in a niche in the west wall of the chancel, and sealed up with a marble slab surmounted by an excellent bust wreathed with laurel. The inscription is as follows:

O Restos é Ymagen del grande Colon!
Mil ciglos durad guardados en la Vrna,
Y en la remembransa de nuestra Nacion.[1]

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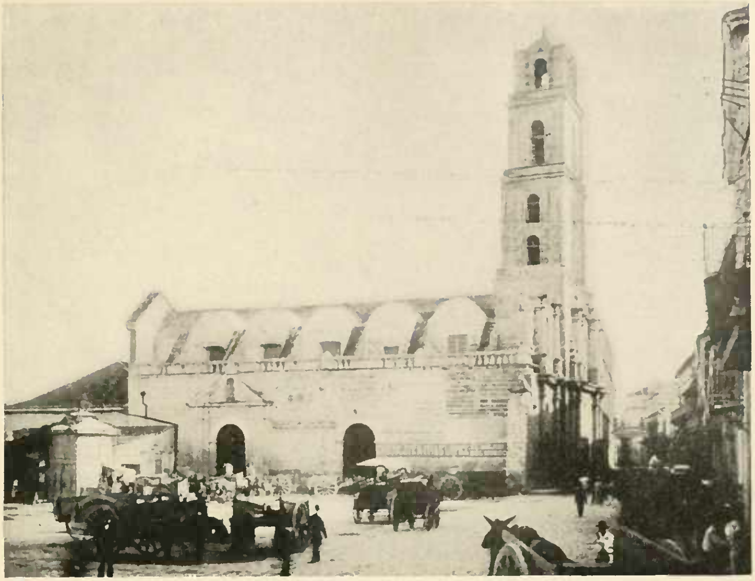
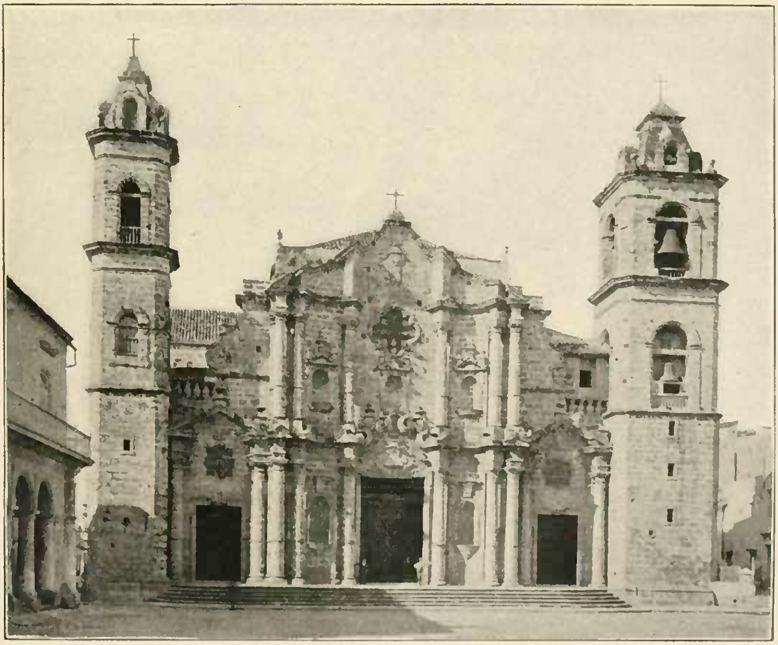
[1] The literal interpretation of this poorly constructed inscription is:

Oh, rest thou, image of the great Colon!
Thousand centuries remain guarded in the urn,
And in the remembrance of our nation.



OLD CHURCH USED AS CUSTOM-HOUSE



THE CATHEDRAL

HAVANA

The inhabitants of Santo Domingo, however, as will be shown in our descriptions of that island, are as positive as the Havanese that they still retain the custody of Columbus's body, and allege that the remains in the cathedral of Havana, to which so many pilgrimages have been made, are not genuine.

There are many institutions of learning in the city, the principal of which are the University of Havana and the large Jesuit College de Belen for boys. The latter is an observatory, where most of the important astronomic and climatologic data concerning Cuba have been collected. It also possesses a museum, in which can be seen preserved the fauna of the island, principally land-snails, birds, and many rare botanical specimens. The library is especially rich in old volumes, drawings, and prints illustrating Cuban life and scenery from the sixteenth century down to our own times.

There are numerous charitable and benevolent institutions in the capital. Among these are the Casa de Beneficencia, founded by Las Casas as an asylum for infants and the aged; hospitals for the sick of all classes; and an immense lazaretto situated in the western part of the city, in which six nuns and two priests attend to over a hundred leprous interns, besides treating dozens of unfortunate beings afflicted with this dread disease who call daily at its dispensary. A handsome and apparently well-arranged hospital for the insane is maintained a few miles south of Havana, on the road to Batabano.

Of the institutions of Havana it may be said that so far as the benevolent and charitable impulses that support them are concerned, they are commendable; but the whole system is utterly behind the age, inasmuch as it is not based upon any thought of the preservation of public health, but is solely for the alleviation of individual cases. For instance, there is no isolation of those affected with contagious diseases; leprosy, smallpox, yellow fever, beriberi, and other diseases are allowed to exist in private residences without consideration of danger to adjacent neighbors or the community at large. Furthermore, dependents of all kinds, lepers, blind, aged, deaf, or lame, are allowed to roam as long as they can beg their way.

The houses of the wealthy are scattered through every part of the city. Some of the finer mansions are very handsome, being built in the classic style. Even in solid city blocks these always have an inner courtyard, or *patio*, surrounded by tall stuccoed columns, and ornamented with beautiful flowering plants around a central fountain. Song and ornamental birds hang in cages. In the suburbs, where the houses are not in blocks, they are usually surrounded by beautiful yards and gardens. It has been said that the handsomest street in Havana is the Cerro, a long thoroughfare running up a hill toward Jésus del Monte, a southern suburb. This is bordered on either side by enormous old villas in the midst of magnificent gardens. The finest of these mansions is built of white marble in the usual classic style. In the midst of a perfect forest of cocoa-palms stands the former summer villa of the bishops of Havana, now a private residence. Then one after another follow the handsome dwellings of the Havanese *sangre azul*, of the Marques dos Hermanos, of the Conde Penalver, of the Marquesa de Rio Palma, etc. The ornamental cacti in these villa gardens are of immense size and shape. They are principally of the *Cereus* kind. The door-steps of nearly all these residences are surmounted by recumbent lions, indicative of the aristocracy of their inhabitants. At one residence the lions were lying overturned in the back yard, instead of upright at the front entrance. Upon inquiry as to the cause of this, I learned that the possessor thereof had become incensed because his neighbor, a parvenu of low origin, upon whom a title of nobility had lately been bestowed, had recently set up lions on the adjacent door-steps. West of the mouth of the river Armendaris is the handsome seaside suburb of La Miranao, where the wealthier residents have constructed tasteful cottages surrounded by gardens, which suggest some of our summer seaside resorts.

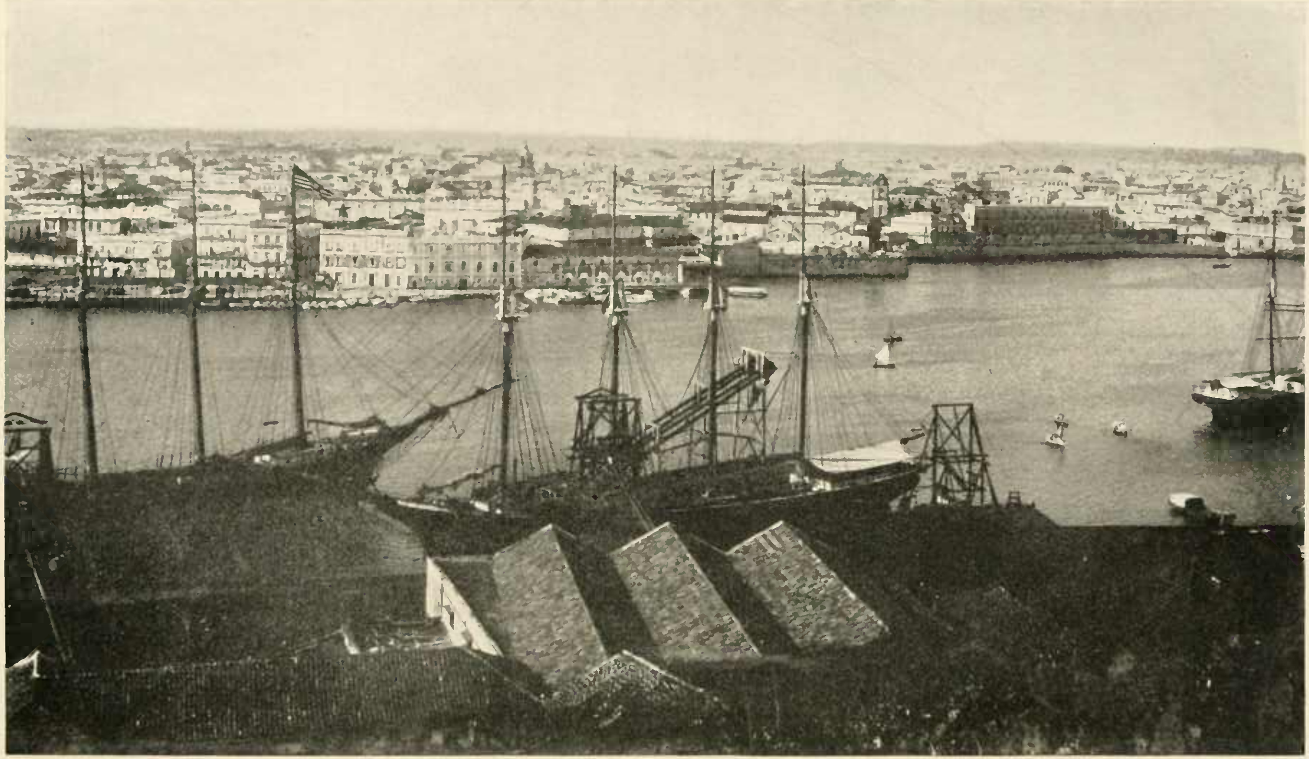
The principal business streets are known as the Calle Obispo and Calle O'Reilly. The latter runs from the governor's palace east, and passes through the central park to the outer walls of the city. It is a crooked thoroughfare, built centuries ago, with sidewalks so narrow that one must step into the gutter to pass an opposing pedestrian. Many of the houses of this and similar narrow lanes and alleys of the old part of the town are but one story high; but one story in Cuba is so lofty that it is equivalent to two of our country. These streets are crowded during the early hours with vehicles and people engaged in shopping or commercial pursuits, and sailors of all nations, for the foreign trade of Havana amounts to fifty million dollars yearly.

The wholesale houses are overflowing with plantation supplies, while the shops are plentifully supplied with European and native goods. Only a few years ago the jewelers' and goldsmiths' shops were renowned throughout the western world; but now, unfortunately, they are entirely ruined. Even in 1878, when the shoe first began to pinch in Cuba, many fine jewels, and some beautiful specimens of old Spanish silver, Louis XV fans, snuff-boxes, and bric-à-brac of all kinds, were offered for sale. Often a negress would come to the hotel bearing a coffer full of things for inspection. The mistress who sent the good woman must have had implicit trust in her servant, who frequently sold her wares for very considerable sums. Few of the Havanese nobility and rich planters have anything left which is worth selling nowadays; but only a few years ago Havana was a happy hunting-ground for bargain-seekers.

Street-railways with cars drawn by mules radiate in several directions from the Paseo. One of the principal lines proceeds north down the Paseo to the Punta battery and baths on the Gulf shore, and then westward for several miles along the sea-front, past the hospitals, to the little village of Chorerra, at the mouth of the Almendares. At this place stands an interesting old ruin known as the Bucaneers' Fort, which was built in the earlier centuries. The place is also of interest inasmuch as it was the site of the first settlement of the present city of Havana in 1819. Another goes south for several miles, past the aristocratic residences of Cerro Street, to the little suburb of Jésus del Monte.

For its size Havana is exceptionally well supplied with public and private carriages. An excellent victoria can be hired for two pesetas (forty cents) an hour. To avoid extortion from the cab-drivers, the lamp-posts are painted various colors—red for the central district, blue for the second circle, and green for the outer. Thus the traveler at once becomes aware when he gets beyond the radius, and pays accordingly. Trouble with the Havanese hack-coachman, usually a colored man and very civil, is of the rarest occurrence. The picturesque *volante*, once as essentially Cuban as the gondola is Venetian, has entirely disappeared from the streets of the capital; victorias and landaus have usurped the place of these old-style coaches, excepting in the country, where they are often to be met with on the highroads.

Of Havana society, like all passing strangers who have not penetrated its inner circles, I can say but little. Superficially it resembles that of most of the cities of southern Europe, and is principally devoted to innocent enjoyment. The gentlemen have their clubs, which are large and well adapted to the climate; the ladies find occupation in their benevolent and charitable organizations. All are fond of dress and driving. The styles among the gentle sex are mainly Parisian, while the men assume flannels, duck, and linen in the daytime, with the universal dress-suit at evening. The city in winter is the resort not only of a large foreign population, including tourists and business men, but of the principal planters of the sugar and



GENERAL VIEW OF HAVANA FROM CABANAS SHORE

tobacco districts. These, with the large set of military officials, add interest to the social picture.

Among the lower classes there is a large industrial population, living in densely crowded houses, and employed principally in the tobacco-factories. There are also manufactories of sweetmeats, candles, carriages, soap, perfumery, and glycerin, and breweries, rum-distilleries, tanneries, and gas-works.

Among so pleasure-loving a people as the Cubans, public amusements hold a far more prominent place than they do in the United States, with, perhaps, the sole exception of New Orleans, and the carnival at Havana was at one time the most brilliant in the Americas. For many years its glories have been declining, and during the last few decades the upper and middle classes have taken little part in the outdoor festivities.

There are many places of *recreo* adjacent to Havana, including the sea-shore and the pretty villages, such as Guines, Guanabacoa, Marianao, and Puentes Grandes. Excursions to places of interest can be taken within a few hours' ride from the city; all the country within railway communication can be reached in a day's time. Two hours will convey one southward by rail to Batabano, or westward to the tobacco-fields of Pinar del Rio, or eastward through charming hills to Matanzas. The miserable village of Batabano, twenty-five miles distant, is only interesting as an entrepôt for the city. Here the coastal cable from Santiago touches, and from this point radiate various lines of steamers along the coast and to the Isle of Pines.

All in all, Havana is a handsome, delightful, and charming city, where one capable of remembering that all the world is not alike will find novel experiences and interesting entertainment on every side. In spite of the frightful mortality of Havana, the better parts of the city are, to outward appearance, clean and beautiful. Prisoners sweep the paved streets each morning, and the houses are all kept neatly freshened with color. Outside of the busy thoroughfares and marts or the crowded homes of the poor, which are no worse than in the down-town streets of New York, one rarely meets a foul smell. The unsanitary condition of the city is largely due to causes which are hidden from public sight, such as the crowding of tenements, the miserable cesspools, and the imperfect sewerage, which befouls the beautiful harbor. The city, we are informed by trustworthy engineers and the highest medical authorities of our country who have studied the yellow-fever question in Havana, could be made one of the most healthful in the world. Until recently it was badly supplied with water, and its sewerage is still abominable. In 1895 a modern system of waterworks was installed by New York engineers, who also prepared plans for the solution of the sewerage problem. The city is well policed. Numerous patrolmen dressed in handsome military uniforms guard the various corners, while gendarmes mounted on fine horses are stationed at various places.

West of Havana, in the Vuelta Abajo district of Pinar del Rio province, there are (or were) many pretty towns. Of these, Cabanas, Mariel, and Bahia Honda are on the northern sea-coast, and have small landlocked harbors which to a certain extent are miniature duplicates of Havana Bay. These towns are very prettily located. The chief places in the interior are Guanajay, Pinar del Rio, and San Cristobal. Guanajay is situated on the principal highway that runs through Vuelta Abajo, and had a population of about four thousand inhabitants. It is a fine type of the smaller Cuban towns, possessing a pretty public square, around which are built some very imposing houses. The town lies in the heart of a beautiful country, about twelve miles from the north shore, between which and it are a number of large sugar-estates situated in a rolling country.

San Antonio de los Baños was a small and pretty town, with well-built houses and about five thousand inhabitants, twenty-three miles from Havana, on the road to Guanajay.

It had mineral springs and baths, and was frequented as a summer resort by the people of Havana.

Pinar del Rio and San Cristobal are the chief inland towns of the Vuelta Abajo. Both are pleasant places, surrounded by picturesque scenery, and principally inhabited by the tobacco-planters.

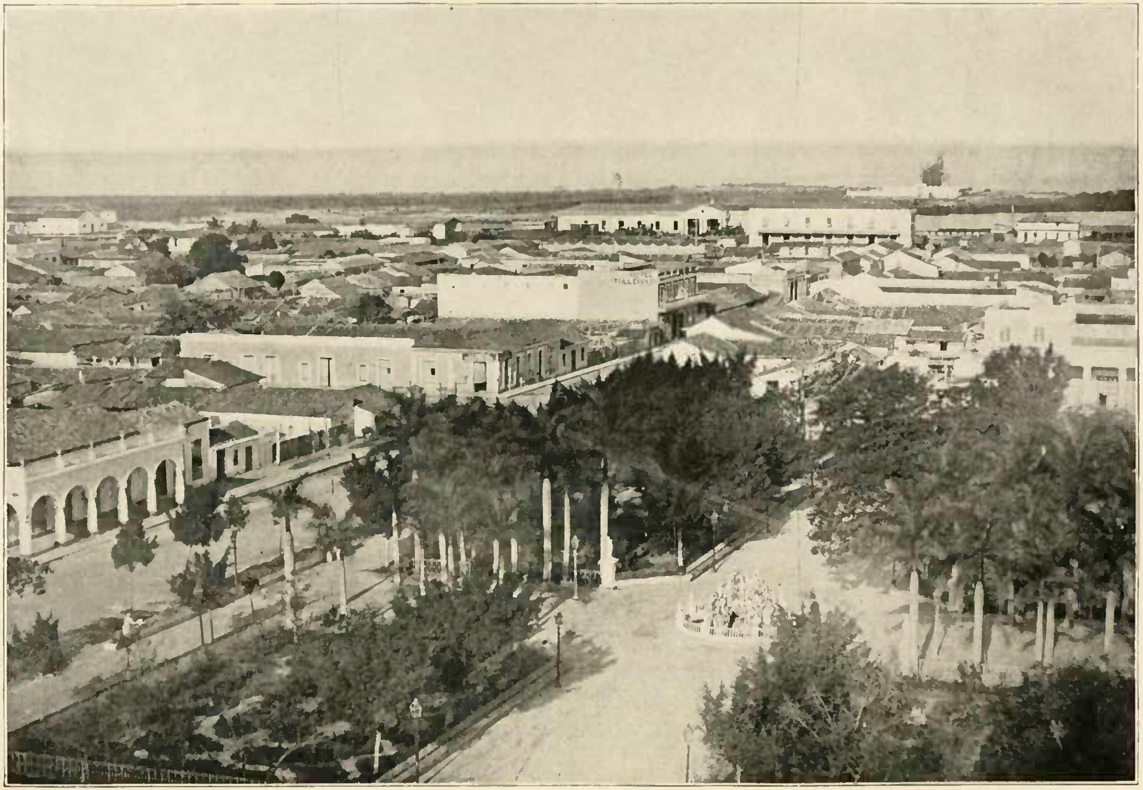
CHAPTER XIII

OTHER CUBAN CITIES

Matanzas. Beauty of the surrounding country. Cardenas. Sagua la Grande. Cienfuegos. Trinidad. Santa Clara. Puerto Principe, Bayamo, and Holguin. Manzanillo. Santiago de Cuba. Guantanamo. Baracoa.

THE second city and seaport of central Cuba is Matanzas, about sixty miles east of Havana. It was founded in 1693, and is the chief outlet for that part of the sugar region which stretches south and east toward Cardenas, and which includes the most fertile lands in Cuba. The harbor is large and capacious, but, like many others, through the laisser-faire policy of the Spanish government, has been allowed to fill with sediment, and hence the larger steamers are obliged to load in the roadstead.

The city itself is handsomely situated on the south and east side of the harbor, on a lower plane, backed on all sides, except toward the sea, by a noble terrace of wooded hills, out of which two beautiful streams, the Yumuri and San Juan, flow into the bay. It is divided into three parts by rivers, the principal business part occupying the central portion and extending west one and a half miles. The chief warehouses, distilleries, and sugar-refineries are on the south of the river San Juan, easily accessible to railroads and lighters. The population is 49,384, and that of Matanzas province 271,000, according to the 1893 census.



MATANZAS—GENERAL VIEW

The principal industries are rum-distilling, sugar-refining, and manufacture of guava-jelly. There are railroad-car and machine-shops. Sugar and molasses are sent to the United States, amounting, from 1891 to 1895, to $59,988,497. The climate is fine, and Matanzas is considered the most healthful city on the island. With proper drainage and sanitary arrangements yellow fever and malaria would be almost unknown.

The streets are well laid out and paved with stone; several handsome plazas with ornamental trees and flowers are interspersed here and there; and the houses in the better quarters are large and neat-looking two-story buildings, the upper portions of which are used as residences. These are all stuccoed in drab or ocher colors, and have neat and ornate balconies along the second story. Club-houses, churches, and theaters of no small proportions also abound, and a handsome administration building. Matanzas has a large pleasure-boulevard, known as the Paseo, which is laid out with gravel walks and rows of trees, with a stony parapet and iron gates at each end of the drive. It is about a half-mile in length.

Newtown, lying to the east of the city, is marked by a handsome street called the Calzada de Esteban, and contains in one block some of the most tasteful dwelling-houses to be seen in Cuba. The houses are large and imposing, having handsome pillared front porticos with iron railings, and generally covered with extensive luxuriant vines. Prettily colored tiles are used along this street for the formation of terraces. The strong color-effects of these houses, which would look gaudy in our climate, are very pleasing in Cuba.

In the northeast part of the city, at the mouth of the Yumuri, and immediately overlooking the shore of the bay, is the suburb known as Versailles. This is a picturesque spot, the home of the boatmen and fishermen, and has a look of antiquity suggestive of the fact that it may have been the original site of the city.

Matanzas is surrounded by a beautiful suburban country. The caves of Bellamar to the east, and the valley of the Yumuri, elsewhere described, are natural objects which almost equal in interest our Yellowstone Park and Mammoth Cave. The *abra*, or cañon, of the Yumuri, with its vertical walls overhanging a grass-covered walk beneath the cliffs and by the beautiful stream, and the shady waters of the San Juan, to the south of the city, are natural pleasure-resorts such as no American city possesses, and are fully appreciated by the Matanzans, who find recreation therein by boating and picnicking. The San Juan is ascended by rowboats for about four miles to a sugar-estate known as Los Molinos, where there are pretty falls, the water-power of which runs the machinery. Short railway journeys from Matanzas also carry one to many interesting sugar-estates, such as those around the pueblo of Union and the famous Concepcion estate of the Aldama family.

Railways run from Matanzas south, east, and west, making the city easily accessible from all parts of the Vuelta Arriba.

Cardenas, founded in 1828, is one of the few towns of Cuba built in this century. It lies on a spacious bay sheltered by a long promontory. It is one of the principal sugar-exporting places of the island, and is connected by rail with Matanzas, Havana, Santa Clara, and Cienfuegos, and by regular steamers with all the coast towns.

It is a thriving place, being the depot and shipping-port of a fine adjacent sugar-growing district. The city is regularly laid out with broad streets, and has a fine large plaza in the center, in which stands a bronze statue of Columbus. A large number of Americans are engaged in business, and form a considerable proportion of the mercantile community. There are a church, several cafés, and a number of fine, well-built wharves, some of which extend a long distance from the shore. The inhabitants claim that the town is generally a cool place, but, as Hazard has remarked, I cannot at this moment recollect any one inducement to the traveler to visit it, unless he deals in sugar and molasses.

Between Cardenas and Juacaro, at the station of Pijuan, there was a very fine sugar-estate known as the Flor de Cuba. It contained about three thousand acres of beautiful rolling land, upon which were a substantial factory and elegant dwelling.

Sagua la Grande is the next place of importance along the north coast, east of Cardenas. It is twenty-five miles from the mouth of a river of the same name, and two hundred miles from Havana. The city is entirely devoted to the sugar-trade. In comparison with other Cuban towns it is an unattractive place, although in climate and sanitary arrangements it is superior to most places. It is the eastern north-coast termination of the Havana railway system.

A railway crosses the island from Sagua to Cienfuegos. This may be said to mark the boundary between the Vuelta Arriba, or western Cuba, and the more broken configuration of Camaguey. East of this line for a considerable distance the urban centers of life and industry are shifted from the northern to the southern seaboard, toward Cienfuegos and Trinidad, although Remedios and Caibarien, on the north coast of Santa Clara, are important places.

Cienfuegos, on the south side, is a modern place, situated on a magnificent landlocked harbor, with a narrow entrance known as the Bay of Jagua. It was this bay that Columbus visited on his first voyage, and which Father Las Casas, in speaking of, described as the most magnificent port in the world, comprising within its shores six square leagues. Although surveyed by Ocampo in 1508, and spoken of by Herrera as a haven unrivaled in the world, the town was settled only in 1819 by refugees from Santo Domingo. Within the past twenty years its trade has increased enormously. It is now the second seaport in the island.

The water of the bay is a beautiful transparent green, through which, at a great depth, can be seen the white sandy bottom. Its depth at the anchorage is twenty-seven feet, and at the wharves from fourteen to sixteen feet. A circular railway leading to a wharf and large warehouses facilitates the loading and unloading of vessels. Many local steamers leave the town for Batabano, Trinidad, Santiago, and the Isle of Pines. The many ships at anchorage alongside the wharves, and the picturesque background of hills, are imposing sights.

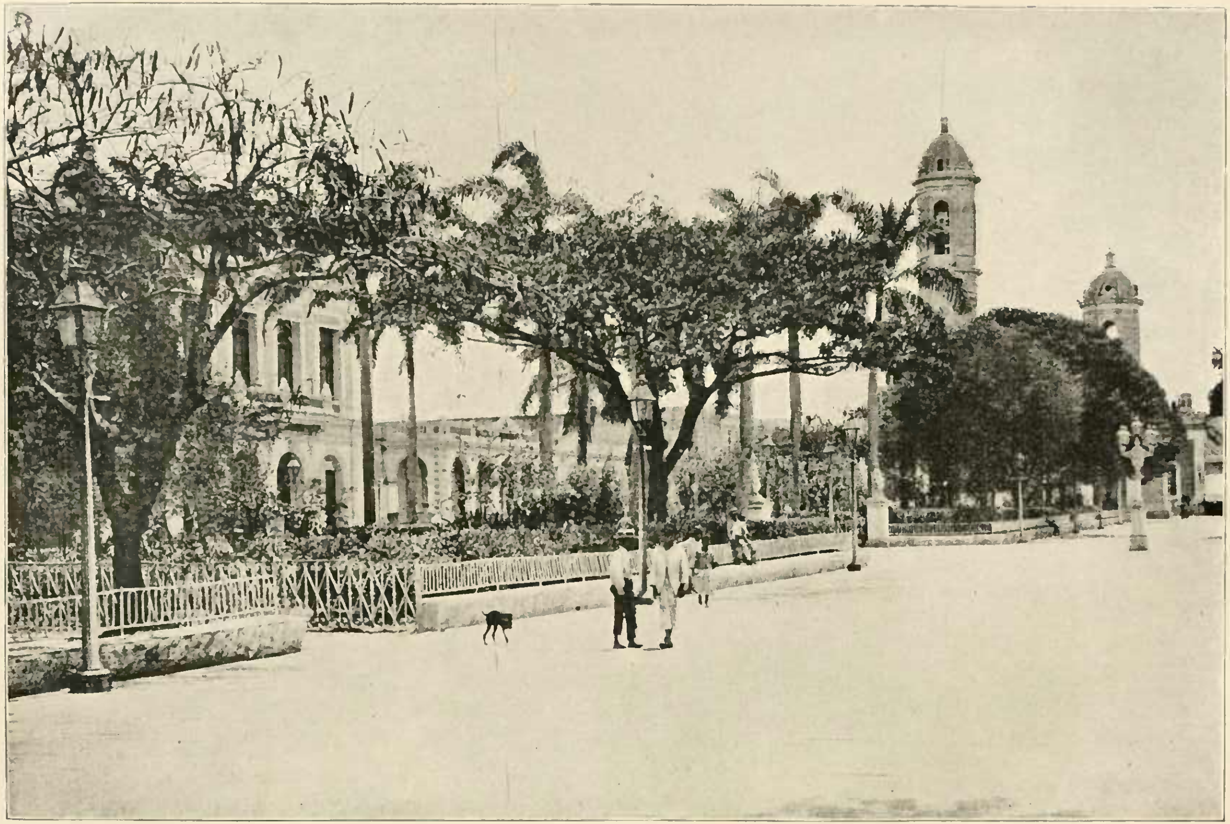
This little city, which is the metropolis of central Cuba, is a model of its kind, has a population of 23,517, and is the center of the sugar-trade of the south side of the island. The streets are regularly laid out; the houses are well built; and there are beautiful shade-trees and plazas, one of which is the largest in Cuba. There is a handsome main avenue, at the end of which are fine statues to General Serrano, a former governor of the island, and to General Clouet, a founder of the town of Cienfuegos, who was an *émigré* from Louisiana.

Cienfuegos is lighted by gas and electricity, has abundant water-supply, excellent clubs, and a theater. It has also an imposing governor's house, military and government hospitals, market-place, and railway-station.

Some of the largest and finest sugar-estates in the world are situated near this city, including the Soledad and others. Probably no place on the island offers greater advantages for seeing sugar-making in its most favorable aspects.

The climate of Cienfuegos from December 1 until May is dry and moderately warm, the temperature ranging from 60° to 78° during the day, and falling several degrees at night. At this season almost constant winds prevail from the northeast or northwest, accompanied by clouds of dust. For the rest of the year the temperature ranges from 75° to 93°, descending a few degrees at night.

Trinidad, to the east of Cienfuegos, dates from the first years of the conquest. The town was settled by Diego Velasquez in 1513, and, like Baracoa and Santiago, represents one of the earliest fortified cities of the New World. The town and harbor were the scene of many desperate



VIEW IN THE PLAZA, CIENFUEGOS

combats during the reign of the bucaneers. Although the city is a short distance back from the sea, it is convenient to no fewer than three harbors and an excellent roadstead.

Trinidad has a picturesque setting of high hills and mountains. It is located on the slope of the mountain called La Vigia ("Lookout"), which has an elevation of about nine hundred feet above sea-level. The port, Casilda, lies about one league to the south; the harbor is almost landlocked and has very little depth. Vessels drawing ten feet six inches are liable to run aground with the least deviation from the tortuous channel. About half a mile west of Trinidad is the river Guarabo, navigable for small boats only. Four miles east lies Masio Bay, which will accommodate deep-draft vessels. The population numbers about eighteen thousand. Sugar and a little honey are exported. The place is so situated that the heavier it rains the cleaner it becomes. The climate is very healthful, the death-rate being 21 to 26 per 1000, though sanitary measures are almost unknown. The town and vicinity are considered the most healthful in Cuba.

The streets, with some exceptions, are narrow and tortuous; there are some fine public buildings, and the houses vary from the humble tiled-roofed, one-story affairs of the common people to the handsome private edifices of the wealthy. The market-place is a very fine square in the southeast end of the town, surrounded by barracks and drill-grounds for the troops. The Flor de Carillo, situated near the center of the town, is beautifully laid out with vines and shrubbery, shading the stone walks, and a profusion of flowers. In the center of the square there is a graceful arbor completely covered with flowering vines. A broad stone walk extends around this square, lighted by a profusion of gas-jets, giving the park a peculiarly beautiful appearance at night.

There are many pleasant drives and rides around Trinidad, the favorite of which is the ascent of Vigia, one of the large conical mountains from which a grand view of the landscape may be obtained. The Pico del Potrerillo, the highest mountain of central Cuba, is also accessible from Trinidad. The Lomo del Puerto commands a valley said to be the most beautiful on the south side of the island. Within the boundaries of this valley are no less than fifty *ingenios*, or sugar-plantations, some of them of the finest class. A number of beautiful streams of water, including the Ay and Agabama, unite to form the river Manati, which empties into the sea east of Casilda. This stream is navigable for seven miles, and by it the planters send their sugar and molasses out of the valley. A railroad from Casilda runs out of the valley for some distance. The magnificent country place of the Cantera family, known as the Recreo or Quinta, if it has been spared the devastation of revolution, is one of the most beautiful private houses in Cuba, rivaling even the palace of the captain-general at Havana. A lovely cañon leads out of the mountains just behind the city. In the winter Trinidad is very gay.

East of Trinidad, which is near the central meridian of the island, important cities begin to appear in the interior, such as Santa Clara, Remedios, Esperanza, Puerto Principe, and Holguin. These are all peculiar and interesting places, where true Cuban life can best be seen, uncontaminated by the modern commercial spirit.

Santa Clara is now called Villa Clara. It was founded in 1689, and numbered about twelve thousand inhabitants, many of whom were formerly people of great wealth, the women being celebrated for their beauty. At the time of my last visit, in 1894, a large and excellent hotel had been constructed. Spacious rooms, generous meals, clean service, and hospitable attention were provided, all on the European style, not equal to our best New York hotels, but far better than are met with in interior towns of similar size in the United States. Villa Clara is connected by two trains daily with Cienfuegos and Havana. The coun-

GENERAL VIEW

THE CATHEDRAL

SANTIAGO DE CUBA

try in this portion of Cuba is diversified hill and plain, with many superb plantations in the valleys.

Camaguey, as the Cubans call the town, or Puerto Principe, as it is officially designated, although remote from the sea-coast, is the chief interior city of Cuba, and claims to be the most creole of Cuban towns. The city lies on a plain about midway between the two coasts, and is connected by rail with Nuevitas to the northeast.

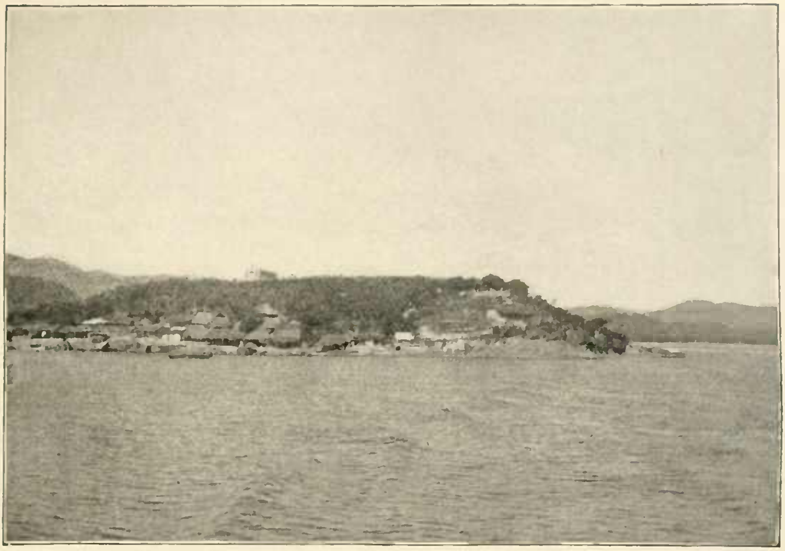
In the basin of the Cauto, Bayamo is the principal place. This is a very old town, which was founded on a southern affluent of the main stream during the first years of the conquest. It was at Yara, a little southwest of this place, that the great republican rising took place in 1868. The next year, when the Spanish troops made their appearance, the inhabitants themselves set fire to their houses. During the present revolution Bayamo has been an important stronghold.

Holguin, lying to the northward of the Cauto, is also an important city of this part of Cuba.

Manzanillo is the only town of importance on the south coast between Trinidad and Santiago. This is a low place, situated south of the Cauto delta, and by nature is, perhaps, the most unhealthful city on the island, not only owing to the marshy surroundings, but because it is cut off by the high Sierra Maestra from the health-giving trade-winds from the south and east. Notwithstanding these facts it is an important commercial and exporting point, being the outlet of the fertile Cauto valley, from which are shipped large quantities of tobacco, sugar, wax, honey, and other agricultural produce.

Santiago de Cuba, or Saint Jago of the natives, is a city of Cuba which is second only to Havana in strategic and political importance, and is the capital of the east end of the island. The city is situated one hundred miles west of the eastern cape of Cuba, upon a beautiful bay, six miles long, so completely landlocked that its narrow entrance can hardly be seen from the sea. Looking from the steamer's deck nothing is visible but the straight coast-line of high mountains, presenting apparently an impenetrable front; but on closer approach a narrow rent is seen, only one hundred and eighty feet in width, but of good depth. Once within the harbor to which this passage gives entrance, one is well disposed to join in the chorus of praise which has been awarded to it by sailors and others who describe it as one of the finest in the world; and certainly it has many admirable points which one realizes only from the inside.

The first Spanish colonizer of Cuba, Velasquez, was not slow to seize upon the great natural advantages which the harbor presented, and two years after establishing the first capital at Baracoa he removed the seat of government, in 1514, to Santiago; hence the place may justly claim to be one of the oldest cities in America, dating from the days of Columbus. The narrow entrance to the harbor presents several pretty objects. On the east point is Morro Castle, which was built by the old Spanish warrior Pedro de la Rocca about the year 1640. Looking at it, one would scarcely believe it possessed much defensive effectiveness when pitted against modern men-of-war. From the point of view of the artist, however, it is perfect. A flight of well-worn steps winds from the water's edge up the side of the grim old brown-and-yellow walls, all covered with moss and ivy, to the solid battlements on top, while the moat, drawbridge, and other surroundings make up a charming picture, suggestive of the days of gallant knights and imprisoned maidens. A little farther in, at the left, is the castle known as La Socapa, which is also very picturesque. On the same side as Morro is a small star-shaped fortification known as La Estrella. Still farther in small islands appear, on one of which, at the left, is built the hamlet of Cayo Smith. The latter is the watering-place of the best families of Santiago, and has many beautiful villas. There is another island at the beginning of the bay, where the magazines are located. The narrow neck of the bay, toward



SMITH KEY

MORRO CASTLE

SANTIAGO DE CUBA

its interior end, is bordered by steep mountain-sides covered with tropical vegetation.

The bay itself is a magnificent body of water, capable, as has been shown in the present warfare, of harboring a whole fleet. As a background, the magnificent heights of the Sierra Maestra appear, assuming in the early morning the peculiar purple color seen to such effect in the Blue Mountains of Jamaica. Not only to the north, but east and west also, tall mountains raise their heads around the harbor, forming a vast amphitheater of nature, with the blue waters of the bay as a foreground. On the right side of the bay, toward its mouth, is a place used by the government as a coaling-station, known as Cinco Reales.

To the right of the city, toward La Cruz, is a small fort called Punta Blanca, which takes its name from the bank of white sand on which it rests. On the hills above are several small blockhouse forts. A large building, used as a convalescent hospital for the Spanish soldiers, is a conspicuous object on the left-hand side of the bay, while on the hillside near the suburban village of La Cruz are many beautiful houses with blue-and-yellow walls, a quaint turret or tower projecting here and there through the matrix of royal palms.

The town of Santiago itself lies at the extreme northeast indentation of the bay, upon a sloping hillside about six miles from the sea. It is a quaint and peculiar city of the characteristic Moorish architecture, with roofs of red tile. Many of the houses are only one story high, but there are larger structures. The dwelling-houses are surrounded by spacious verandas, which give upon beautiful gardens filled with a wealth of gorgeous tropical flowers; orange-, lime-, poinsettia-, and hibiscus-trees give a variety of color. One of the best features of the place is the Alameda, the road extending along the water-front for about half a mile, with a good surface for cycling, and shaded by waving palms and other trees. At its eastern end is a very pretty botanical garden, and about midway in its course is a charming rustic pavilion, directly opposite the pier which leads to the comfortable quarters of the Club Nautica. Both the club and the Alameda are chiefly due to the efforts of the foreign residents, who control the trade of the city. There are no hotels, but the Anglo-American Club usually takes care of respectable strangers, and travelers have declared that it supplied the best-cooked meals and was the cleanest and most comfortable stopping-place for foreigners in the West Indies.

The commercial houses are not imposing, and convey a wrong impression of the business transacted therein. Looking at the shabby, tumbledown offices, one can hardly credit that some of the firms transact operations aggregating several millions a year.

The old cathedral forms the eastern boundary of the Plaza de Armas, where on Thursday and Sunday nights it was the custom of the citizens and señoritas to promenade while listening to the music of the military bands. The government house and the Club San Carlos are two of many respectable buildings on this plaza. Among the other city buildings mention may be made of the large military barracks and hospital on the hill to the northwest, and the theater, now in a dilapidated state, in which it is claimed that Adelina Patti, at the age of fourteen, and under the direction of Gottschalk, made her début on the public stage.

Santiago is the center of the mineral district of Cuba, and railways radiate from the city to the mines of the various American iron and manganese companies, east and west along the coast, and southward through a high pass in the mountains to the village of El Cobre, at the site of the abandoned copper-mines. The city is largely embargoed from the interior by the mountains, but much commerce passes across the latter to the interior valley of the Cauto. In the future development of Cuba, as in the past, it will always be of more or less importance, owing to its strategic position near the Windward Passage, or principal entrance to the Caribbean. Under a stable government the adjacent

PLAZA

La Puerta del Sol

CALLE DE PUERTO

SANTIAGO DE CUBA

mountains will become the seat of extensive coffee and fruit production.

The population in 1895 was 59,614, many people having been driven away by the revolution. The mean temperature in summer is 88°; in winter, 82°. It is regarded as very unhealthful, yellow fever being prevalent throughout the year, and smallpox epidemic at certain times. Santiago is the headquarters for three large mining plants owned by United States citizens, namely, the Juragua, the Spanish-American, and the Sigua, together representing the investment of about eight million dollars. There are a number of tobacco-factories, but the chief business is the exportation of raw materials, and the importation of manufactured goods and provisions. Sugar, iron ore, manganese, mahogany, hides, wax, cedar, and tobacco are exported to the United States.

Guantanamo is the only other place of importance on the Sierra Maestra coast. It is about fifty miles east of Santiago, and, like it, at the interior end of a beautiful but shallower landlocked bay, and is one of the most charming little cities in Cuba. The coast country, particularly, is noted for its beautiful groves of lime- and lemon-trees. The heights were once the favorite place for the residences of wealthy sugar- and coffee-planters from the middle and eastern regions, where all the richest sugar-estates are situated. It was a Cuban Newport or Bar Harbor. The *cafetals*, or coffee-plantations, of Cuba—and there are many of them—are all located on the hills looking down upon the placid waters of Guantanamo Bay. Coffee-bushes are planted in the shade of other and larger trees, like the lemon and lime, which grow twenty-five or thirty feet high, thus furnishing the perfect shade the coffee-bush needs. Besides being beautifully ornamental trees, the lemons and limes produce great quantities of the finest fruit, which has a commercial value per acre far exceeding that of oranges.

Mr. William H. Stuart, of the sugar-refining firm of R. L. & William H. Stuart of New York, the proprietor of the sugar-plantation La Carolina, the finest place on the southern side of the island except Don Tomas Terry's estate, owned a charming Italian villa on a point just opposite and below Guantanamo. He had an avenue running up from the seaside to his residence, nearly a mile in length, laid down in shells, and shaded on either side by a growth of lime- and lemon-trees for the entire distance. Don Emilio de Rivas, another very rich sugar- and coffee-planter, owned a superb old mansion on the heights just above, and to the southward of Guantanamo, in which were three hundred acres of coffee-bushes, shaded and covered by groves of lemon-trees. His annual income from fruit and coffee grown here averaged for over ten years from thirty-five to forty thousand dollars in gold.

From Guantanamo to Cape Mayci, the eastern point of the island, and thence westward along the northern side to the mouth of the Yumuri of Santiago, one sees no sign of human habitation, except a few huts around the solitary lighthouse on the point of the island. From the Yumuri westward to where the fin-like string of keys join the mainland are to be seen some of the quaintest and certainly oldest places in America, the principal of which in sailing westward are Baracoa, Nipe, Banes, Gibara, Padre, and Nuevitas. These are all antique and interesting places, possessing many old ruins and fortifications.

Baracoa, the most eastern port of the north coast of the island, is of historic interest, inasmuch as it is one of the oldest continuous settlements of the New World, having been settled by Diego Columbus, the son of Christopher, in the year 1514. The inhabitants—they are seven thousand in number—still point with pride to the ruins of his house. It will also go down in history as the point near which, on February 20, 1895, Antonio Maceo and his valiant band of nineteen followers, by a most daring and successful landing, started the present revolution, and from which within a year's time he marched to the western extremity of the island.

The town is situated on a projecting tongue of elevated

PLAZA

STREET SCENE

DEPOSITO D TABACOS Y CIGARROS D LA

MARKET

NEGROES

SANTIAGO DE CUBA

reef rock, at the top of which is a little star-shaped fort of medieval structure. The inhabitants show you where the first cross was erected, and the ruins of the first house can still be seen. The circular harbor is only a mile in diameter, but has a picturesque setting of high hills to the south and west, above which towers the gigantic flat-topped hill known as El Junki, which is a notable landmark to the mariner on approaching this coast.

Baracoa is the center for banana shipments, and many steamers here load with the finest and largest fruit grown in the West Indies. Its chief industry is the grinding of cocoanuts to extract oil. There are two establishments, with a capacity of thirty thousand cocoanuts daily, employing about fifty workmen. There are also a petroleum-refinery (closed at present) and a chocolate-factory. Bananas and cocoanuts are exported to the United States ($628,811 worth in 1895).

The other cities of this general region are also unique, and, like Baracoa, each seems to be the metropolis of a limited local region, cut off from the others by high mountains, and connected with the outer world only by the sea.

CHAPTER XIV

THE FUTURE OF THE ISLAND

The coming industrial rehabilitation. Limitations of climate and possibilities. Opportunities for small farming. The reopening of the sugar-plantations. Industrial openings. Future railway construction and public works. Harbors and municipal improvements. Commercial expansion.

WITH the passing of the Spanish régime in Cuba, which now seems assured, one is naturally inclined to speculate concerning its political and commercial future. Under the solemn declaration of the resolution passed by both bodies of our Congress and signed by the President of the United States, this country stands committed to assist the Cubanos in establishing an independent form of government. It is our solemn duty to fulfil this obligation. Back of it, however, is a strong feeling, upon the part of Americans, foreign residents of Cuba, and Cubanos, that the ultimate destiny of this island will be absorption into the American Union. This fate has been predicted by every intelligent student and desired and prayed for by the people of the island for over half a century. That it will ultimately be brought about by natural and friendly means there can be no doubt.

Whether it remains an independent republic or becomes a part of our territory, it is generally believed that the island will undergo an industrial and commercial renaissance which will afford openings for colonization and investment by the American people. Accompanying this opinion there is a demand for information concerning possibilities in these directions.

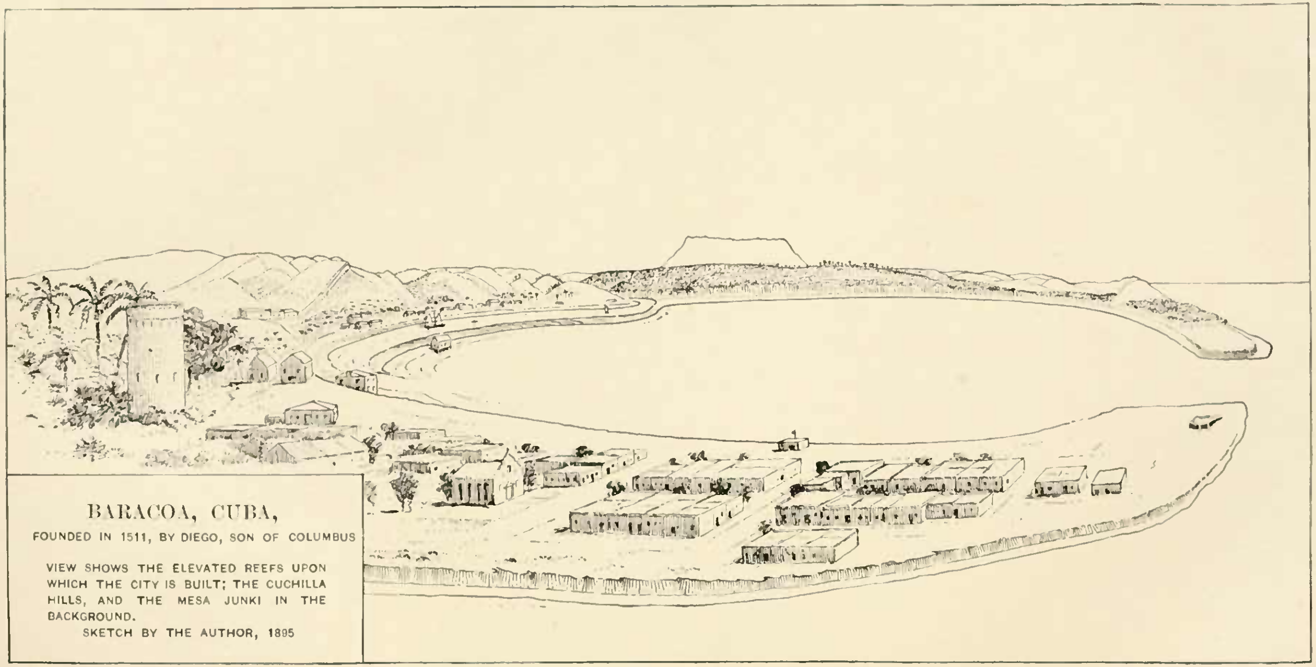
There are two important facts which the American who contemplates invading this prospective field should bear in mind. First, that Cuba is an old and settled country in which the land and mineral titles are largely fixed, and that it offers no opening for "booming," such as has followed the opening up of new and unsettled countries. Real-estate holdings might no doubt be cheaply acquired from the impoverished inhabitants, but the title to every acre of Cuba is vested in some individual; there are no large bodies of valuable vacant public land.

A second fact to be remembered is that, while the climate of Cuba is in general salubrious and in winter delightful, the island is situated within the tropics, and Northern races cannot be established there, except at the sacrifice of many lives. People from our Southern coastal States, who have already attained a certain immunity from tropical diseases, might be able to endure permanent residence in Cuba, but the Northern man will find continuous residence upon the island impossible without physical degeneration and risk of annihilation. Hence the American who seeks investment in Cuba should have sufficient means to enable him to return frequently to his native country, in order to recuperate from the effects of the tropical climate.

With rehabilitation of Cuba the island will offer opportunities to four lines of investment: agricultural opportunities for the small farmer; fields of investment for capitalists, in the line of municipal and public improvements; employment for labor; and the establishment of winter homes and resorts for the leisure classes.

The possibilities in the lines of small agriculture, such as dairying, truck-gardening, and fruit-raising, are unlimited. The large city, plantation, and industrial populations will all create a demand for the products of the vegetable garden; besides, the island has considerable opportunities in the way of supplying these to the Northern United States in winter. The fruit industry is bound to become one of the most important, as the island is peculiarly adapted for the growing of oranges, lemons, bananas, pineapples, and such other tropical fruits as find a large consumption in this country; and this industry, when stimulated by the removal of tariff restrictions, will undoubtedly attain in Cuba even larger proportions than recently shown in the instances of Florida and the Pacific coast. The cultivation of coffee, sugar, and tobacco will also be extended and improved with the removal of the tariff duties, and in all of these fields there is room for abundant profit and pleasant occupation.

The mountainous eastern end of Cuba will be the field of most profitable fruit- and coffee-culture. This highly favored region is the only one, outside the Mediterranean shore between Marseilles and Genoa, that will produce lemons equal to those grown in Sicily. Properly conducted, the lemon-culture, with that of peaches and superb nectarines, that begin ripening in May (both these fruits are superior to the same kind grown in southern California), would become a great source of wealth to the United States. Lemons and limes are more easily grown than oranges, and as the area of their production is limited, there would be no surer agricultural road to fortune than their cultivation presents. The eastern end of Cuba is one of the finest regions for coffee-culture in the world, particularly that portion of the island from Santiago to Guantanamo, and from Cape Mayci to Baracoa, over on the northern side. If Americans ever possess this island, its ores, fruits, healthful climate, and fine mineral springs will make it one of the richest countries in the world. Oranges, too, grow without cultivation in all parts of the island; but no pains have been taken by selection or otherwise to make them equal to the product of Florida. Pineapples are grown in and exported from western Cuba and the Isle of Pines.



BARACOA, CUBA,

FOUNDED IN 1511, BY DIEGO, SON OF COLUMBUS

VIEW SHOWS THE ELEVATED REEFS UPON WHICH THE CITY IS BUILT; THE CUCHILLA HILLS, AND THE MESA JUNKI IN THE BACKGROUND.

SKETCH BY THE AUTHOR, 1895

There is a tempting opportunity for men of small means to settle on the mountain terraces, and, under the most genial conditions of climate all the year round, to make a fair livelihood out of their little coffee-plantations. To the class of settlers for whom our Northern climate is too severe, the chances which Cuba offers for coffee-growing can hardly fail to be peculiarly attractive, and it is to them we may have to look for the first infusion of the best qualities of the American among a community somewhat deficient in them.

Dairying and cattle-raising also present fair prospective openings. In the eastern provinces the cattle industry, owing to the fertile grazing-lands existing there, reaches considerable proportions, the product being large and fine animals of Spanish stock. There is also some horse-breeding in all parts of the island, the characteristic Cuban horse being a stout pony descended from Andalusian stock, with the build of a cob, and a peculiar prancing gait which is said to render it an exceptionally easy riding-animal. There is always a good demand for horses, mules, and oxen.

Large capital will undoubtedly be devoted to reopening the sugar-plantations. It is a mistake to assume that the beet-sugar bounties of continental Europe must render unprofitable the growing of the sugar-cane in Cuba. They did contribute to the ruin of most of the non-resident proprietors, out of the savings of whose stewards and superintendents the modern city of Barcelona—the Liverpool of the Mediterranean—is said to have been built. But all the methods of sugar production practised under these auspices were grossly wasteful, and even under the conditions which existed at the outbreak of the latest rebellion, when there were two successful sugar-crops of over a million tons, there was a needless waste. Machinery has been brought up to the latest standard, and the transportation of the cane to the mill has been cheapened by the construction of narrow-gage railroads, but the processes of agriculture are still capable of improvement. When it is remembered that three fourths of the cost of sugar production belongs to the agricultural side, and only one fourth to the mechanical side, the extent of the opportunity that exists for improvement will be appreciated.

Roughly speaking, there is an average of two hundred pounds of sugar to every two thousand pounds of cane. Under the most favorable conditions there may be three hundred pounds of sugar to the ton of cane. But if this attainable maximum of fifteen per cent. of sugar could be increased, as it readily might, by more careful cutting, planting, and cultivating, to twenty per cent., there would be an immediate increase of thirty-three per cent. in the yield, with little, if any, increase in the cost of raising and harvesting.

The advantage which Cuba possesses over all the other West Indian Islands in the matter of sugar-growing has already been alluded to. To this should be added the notable advantage of the possession of deep harbors, admitting of direct shipment without lighterage, and a consequent saving in freight, representing an appreciable percentage of profit. That an increased production of sugar would add to the wealth of Cuba and the purchasing capacity of its people is sufficiently plain. Considering, however, that sugar-growing is a branch of agriculture best conducted on a large scale by men of capital, employing, generally, low-priced labor, the regeneration of the island can hardly be looked for from this source.

The chief opening for American energies will be found in the line of public improvements. Railways must be constructed, cities improved, waterworks and sewerage systems established, harbors dredged, and a thousand and one public works undertaken which Spain has long neglected, and which are necessary to the large population which the island already possesses. Concerning the prospects in these directions, we can present them no better than by summarizing the opinions recently expressed by Mr. W. B. Scaife, an American engineer who has had long acquaintance with the island, and who "has entire faith in an ultimate bright future for Spain and Cuba, when some Western light shall shine through the present darkness, and the people have half a chance to educate their children and take some real part in the government of their country."

The various directions in which industrial and engineering works may be carried out may be generally stated to be the same as those which present themselves in any new country, in spite of the fact that Cuba is the oldest settlement in America. The opportunity for the building of common roads is larger, and in most places there is an abundance of stone for the purpose. The roads cross rivers, etc., by fords, which are impassable soon after the rains set in, and, although the streams are neither large nor very numerous, the necessity for bridges is great. A glance at the map will show that the great bulk of the island to the east of Santa Clara is yet untouched. Part of the region is still unexplored. In the cultivation of the cane, both in the preparing of the land and in the planting and harvesting, there is a crying need of machinery. The planting of the cane is nearly all done by hand. There are a few cane-planting machines, but little is known about them. The weeding is done by hand in the majority of instances, and finally the harvesting is done with a knife; and a laborious business it is. It takes five hundred men per day to cut the cane alone on a large estate, to say nothing of loading, and teaming to the railroad-tracks; and the man who can successfully solve the problem of a cane-harvester has a large field to work in.

The supplying of the sugar-houses with new machinery has been an enormous business in the last decade. It has been in the hands of the Scotch, French, and American machine-houses mostly, as the German and other Continental houses have fought shy of the long credits demanded, the insufficient security, and the general lack of faith in Cuban business affairs. There can be no doubt that much new business in this direction must spring up with the settlement of the present troubles, and it will doubtless gain in security with time.

No electric roads exist in Cuba at the present time, but their immediate institution may be looked for. It is a singular fact that the travel on the various coasting-steamers, on the vessels running up the small rivers, on the railroads, and on the few busses that run to the suburbs of the larger towns, is very much larger than one would expect from the apparent nature of the people and their means. The writer has constantly been surprised at the overcrowding of these means of travel, and understands, on the best authority, that the business pays handsomely. The rates charged are usually exorbitant.

The extension and improvement of steam-railways, opening up the country and giving better service, is sure to be a very paying business in the future, while there are a number of towns, besides Havana, in which electric roads could be run to advantage.

Municipal improvements will also give much work to engineers. First among these is the drainage of the towns. The sewers, where any exist, are horrible things, built without the most elementary knowledge, in which the congested filth of years breeds disease and vile odors. Means of flushing them do not exist, and undoubtedly the dumping of house-refuse and emptying of substitutes for water-closets along the curbstone are less dangerous to health than such a sewerage system. To this abominable condition of the towns may be traced the prevalence of fevers, smallpox, and dysentery. These diseases are uncommon on the isolated estates, and the writer firmly believes they may be almost entirely eliminated from the island by giving attention in the towns to the ordinary rules of sanitation.

Another and equally important need in Cuban towns is water. Havana is pretty well supplied, but in most other towns there is very little or none besides the rain-water stored, during the wet season, in great stone cisterns beneath the houses. It is not that the people in general do not fully appreciate the necessity and luxury of water, but that the executive power is lacking. Taxes are raised for this purpose, and special taxes are sometimes levied to build new works, or for coal to keep the pump going; but (and this may serve as an instance of many transactions) the money is calmly banked to the credit of the officials, or the coal is bought and resold for their benefit. Water is lacking in the towns during the dry season, and might easily be had. Excellent springs abound in most places, and small rivers of good water are fairly common.

Connected with the cities and towns may be cited harbor improvements. Cuba is the land of fine harbors. Havana, Matanzas, Santiago, Guantanamo, Cienfuegos, and many other less important spots have splendid harbors, and, with the exception of Matanzas, which is wide at the mouth, the entrances are so narrow that inside they resemble inland lakes in form and tranquillity. But more piers and wharves for sea-going vessels are much needed.

Much loading and unloading is done by means of lighters. Money is collected for the construction of piers and the dredging of approaches to them, but no work is done, for a very profitable understanding seems to exist between the owners of the lighters and the city governments on these points. Such a condition of things cannot continue for very long. In a prosperous season Cuba ships a million tons of sugar alone, and surely, under a half-enlightened government, this were worth an occasional pier.

What the iron and copper deposits may amount to, it is now impossible to say, but that both exist in paying quantities is undoubted. In the total absence of any official reports on which the smallest reliance can be placed, the prospecting engineer must attack the problem of Cuban mining from the very beginning. All one can say at present is that the field is a promising one. The ore deposits lie near the coast, and the large shipments of iron ore, even in these troubled times, attest its value in the eyes of American buyers. However, the mining industries will be confined to the mountainous region of eastern Cuba.

In looking at the future development of Cuba we have to consider the question of labor. This is of three kinds —white, black, and yellow. The white labor consisted of native Cubans, natives of the Canary Islands, and Spaniards, of whom the latter are far the best for general work.

The war has seen the complete overturning of the island's labor system, and the destruction and demoralization of the laborers. No white man can do manual labor in the tropics continuously and live, unless he be of the Latin races. In the adjacent islands, especially Jamaica, there is a large surplus of negroes who might be attracted to the island, but as a laboring class these negroes are unreliable; besides, there is a potent danger, which we need not mention, in introducing this class into Cuba. The blacks of our Southern States might be drawn upon in this connection, but notwithstanding our tendency to discourage them at home, we have no surplus of industrious ones to spare. Altogether the most prolific source of laborers must be the southern lands of Europe, and the stream of immigration from them which now pours into our Northern States, if deflected to Cuba, would soon supply the demand.

If good government be established in Cuba, it will undoubtedly become the Riviera of the western hemisphere. For natural beauty, picturesqueness, geniality of climate, and opportunities for rest, amusement, and recreation, its diversified landscape, mineral springs, and surrounding seas are unequaled by those of southern France and Italy. Here, undoubtedly, thousands of Americans will annually seek winter rest and recreation when peace is restored and sanitation established.

It may seem paradoxical to speak of the advantages of Cuba as a health-resort in its present unsanitary condition, but we feel no hesitancy in saying that for the overworked, debilitated man of business, or one whose system has become reduced, the climate and scenes of Cuba will work wonders; but the atmosphere is fatal for consumption or other pulmonary complaints. It is safe to visit the island after December, and the unacclimated can remain even until the first of June, although in May it is very hot, and fever appears among the shipping.

The chief advantage to us of the liberation of Cuba will be the benefits which will accrue to our commerce, as a result of the removal of the restrictions upon trade. The one-sided condition which now exists, whereby we purchase nine tenths of the products of the island and sell it only one quarter of its food and manufactured articles, will cease. The lumber of our Southern seaboard, the foodstuffs of the Western farmer, and the manufactured articles of the East, will find increased and profitable consumption. Under any possible settlement of the political and economical status of Cuba, the thirty millions of annual imports from Spain would be drawn, for the most part, from the United States.

SUPPLEMENTAL NOTE ON THE ISLE OF PINES

The principal of the outlying islands considered geographically as a part of Cuba is the Isle of Pines, which is situated about thirty-eight miles south of the coast of Pinar del Rio. This is the only one of the adjacent islands which is not merely an elevated reef or mangrove swamp, and which has a geologic structure and configuration comparable to the mainland. Its area of 1214 square miles is almost equal to the combined area of the other thirteen hundred islands and islets.

The island is circular in outline, and almost divided by a bayou, or salty depression, into two divisions, the southernmost of which is a vast cienaga, occupied only by a handful of fishermen. The main portion of the island is diversified, being dominated by a central ridge of low mountains extending from east to west, rising to two thousand feet above the sea. Elsewhere the island is quite flat, consisting of land which represents a coralline plain recently reclaimed from the sea.

Steamers from Batabano run to Santa Fé and Nueva Gerona. The latter place is a very small town at the foot of the hills, with plains of palm-trees in its neighborhood, the town itself being on the Rio de Serra de Casa, some distance from its mouth. Santa Fé, which is the chief place of resort for travelers, is a miserable congregation of houses on the banks of the river of the same name, some distance from its mouth, and also some distance from the steamboat landing. This landing is a rough wooden wharf, from which carriages and stages ply to Santa Fé. In the immediate neighborhood of Santa Fé there are beautiful drives and walks, where the country is more rolling and even hilly.

The climate of the Isle of Pines is delightful; the air is pure, dry, and balmy, and the winds coming from the sea, passing over pine forests, are gentle and invigorating.

The inhabitants of the island are a very simple, kind-hearted set of people, and very fond of a chat with strangers, with a natural dignity of manner and courteously hospitable ways.

For many years a large penal colony has been maintained on the island, consisting mostly of Cuban revolutionists.

CASCADE OF PLAZA DE LAS DELICIAS

FABRICA DE TABACOS
TABAQUERIA

ISABEL STREET

PONCE, PORTO RICO

CHAPTER XV

THE ISLAND OF PORTO RICO

Situation and physical features. Configuration. Outline. Picturesque topography. Drainage. Abundance of rivers. Flora and fauna. Geology. Climate. Hygiene and sanitation.

OWING to current interest, the normal order of arrangement, which would lead to a consideration of Santo Domingo, will not be followed, but Spain's most eastern Antillean possession, the island of Porto Rico, will next be described. This has justly been spoken of as "one of the most lovely of all those regions of loveliness which are washed by the Caribbean Sea; even in that archipelago it is distinguished by the luxuriance of its vegetation and the soft variety of its scenery." Situated at the eastern extreme of the Antillean chain, a thousand miles from Havana, it presents many strange contrasts to Cuba. Although children of the same mother, the Cuban island, so varied in relief, configuration, diversity of resources, and settlements, seems continental in proportion to Porto Rico, which is a small insular microcosm, only one-twelfth the area of the former island, and hardly equal in dimensions to its smallest province, yet six times more densely populated. In form of government, and in the character and condition of the people, there are even stronger contrasts between these countries, one being a despotically ruled colony, whose children despise the race from which they sprang; the other an integral part of Spain, whose people rejoice in the name of Spaniards. The Cubans are fired with the spirit of progress and infected with American notions, while the Porto Ricans are plodding along in contentment, without permitting serious thoughts of revolution to bring insomnia to a utopian land where sleepiness is not a crime.[1]

Porto Rico is the smallest and most eastern of the Great Antilles; at the same time, the most productive in proportion to area, the most densely settled, and the most established in its customs and institutions. It is also notable among the West Indian group for the reason that its preponderant population is of the white race, and that it produces sufficient foodstuffs to supply its inhabitants, as well as some of the neighboring islands.

Although it nowhere attains the great altitudes of the other Antilles, the island is practically the eastward continuation of the Antillean chain of uplifts. It rises from the shallow submerged bank which borders it for a few miles, and which is a continuation of that of the other Antilles. Thus, with the surface of the island, it is the upward extension of the remarkable slope which, at least on the north side, descends nearly thirty thousand feet to the bottom of the Brownson Deep, until recently supposed to be the deepest hole in the world.

Its outline presents the appearance of an almost geometrically regular parallelogram, nearly three times longer than broad, with its four sides following the four cardinal directions. The sea-line, unlike that of Cuba, is perfectly straight, and the coast is usually low, especially on the southern side, although there are a few headlands. It is also void of fringing keys or deep indentations of its coast, such as border the island of Cuba.

Porto Rico is the smallest of the four Great Antilles, Jamaica exceeding it in size by 500 square miles. It is 95 miles long, 35 miles wide, and has an area of 3668 square miles. The coast-line is about 360 miles in length. Its area is 300 square miles greater than that of Delaware, Rhode Island, and the District of Columbia combined, and 300 less than that of Connecticut.

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[1] Since this was written the Americans have carried liberty to the island.

The general aspect of the island is that of a picturesque, hilly landscape. Its beautiful and fertile plains, the abundance of gently flowing streams, the variety of vegetation, including palms which elevate their fronds above the lower stratum of evergreen, the bright patches of cultivated fields, the clear skies, mild temperature, and invigorating winds, give to the country a very engaging aspect.

The configuration of the land is that of a low central mountain range extending through its greatest length, with low and broken slopes. These mountains, which are a continuation of the Great Antillean uplifts previously described, extend from the western cape, Cadena, near San German, to the northeast corner of the island. Their culmination is found toward the east end. Their highest peak, 3609 feet in altitude, is the Yunque of the Sierra Luquillo. The lateral extension of these mountains toward the south coast is here known as the Sierra de Cayey. The westward ramifications of the system have various names. Near San German there are some notable summits known as the Tetas de Montero. On the higher portions of the sierras are remnants of the virgin forests which once clad the entire island, and, no doubt, still constitute an important factor in controlling the magnificent water-courses which drain them. The slopes are gently rolling divides until they approach the littoral, where they are superseded by wide and beautiful plains, well drained and void of extensive marshlands.

Apart from the natural wealth of her soil, Porto Rico has the additional advantage of being well supplied with water, which is generally scarce in the islands to the eastward, many of which are destitute of springs.

The northern district is moist, subject not only to the periodical rains of the West Indies, but also visited by occasional showers. Hence its undulating surface is adapted to pasture and the more ordinary kinds of cultivation, and is intersected by numerous perennial rivers; while the southern part of the island is frequently without rain for many months, though even there water is always found half a yard beneath the surface.

Porto Rico's rivers have been among the agencies which have contributed most to her growth in wealth. There are more than twelve hundred streams, the principal of which are the Loiza or Rio Grande, Bayamon, Plata, Cibuco, Manati, Arecibo, Camuy, and Guajataca, which flow to the north, and the Culebrinas, Anasco, Guanajibo, and Mayaguez, flowing to the west; the Portugés, Jacaguas, Descalabrado, Coamo, Guamani, and Guayanes, to the south, and the Humacao, Naguabo, and Fajardo, to the east. Some of these are navigable for small vessels for a distance of two or three leagues, but have troublesome bars across their mouths. The facilities for internal navigation, for driving machinery by water- and steam-power, and for irrigation are not common on islands of this size. There is an almost total absence of the stagnant water which so often vitiates the atmosphere of tropical countries.

The island contains eight small lakes, which are known as Martinpeña, Tortuguero, Pinoñes, and Cano Tiburones, on the north side; Albufera de Joyuda, on the east; Flamencos, Cienaga, and Guanica, on the south.

Notwithstanding the normally peaceful conditions which have prevailed in this island, there has been little or no systematic exploration of it. There is no record of any topographic or geological survey by which either the details of its relief or its exact area is known. Neither has its geology, flora, or fauna been systematically studied. As remarked by a writer sixty years ago, the island is less known in this country than even Japan or Madagascar. This fact is not due to inaccessibility or difficulty of exploration, for hundreds of intelligent people visit it yearly, but merely to the fact that few have taken the trouble to record their observations. The sum total of the scientific literature of the island since the days of Humboldt would hardly fill a page of this book.

Porto Rico has long been famous for the beauty of its flora; but little study has been made of it. The island is especially noted for the number and size of its trees, particularly those of the forests of the higher regions, which still persist in their primeval grandeur, the forestry regulations having been more wisely observed than elsewhere in the West Indies. These forests, which in a general manner resemble those of the other islands, are largely destitute of epiphytes and other parasitic vegetation, such as ordinarily mantle the tropical trees, except orchids.

Among the notable trees mentioned by Eggers are several species of palms (*Euterpe*); a beautiful tillandsia, with immense odorous flowers and silvery leaves, its wood, called *sabrino*, being used for timber; a hirtella, with crimson flowers; an unknown species with beautiful orange-like foliage and purple flowers; a tall lobelia; and a large heliconia. The tree-ferns are also represented by two species. Another conspicuous tree forming extensive woods is the *Cocoloba macrophylla*, with immense purple spikes more than a yard long. A hard wood called *ausubo* is common upon the island, which is much used for the construction of building-frames. Hard and soft Spanish cedar, ebony, and the West Indian sandalwood—the non-fragrant kind commonly used for making the backs of hair-brushes—are common. There are also many other excellent woods for construction, locally known as capo blanca, capo prieto, laurel, willow, guyacan, ucar, espeguelo, moca, maricao, ortegon, tachuelo, cedro, cojoba, acetillo, guraguao, algarrobo, maga, yaiti, palo santo, tortuguillo, zerrezuele, and guyarote.

The natives enumerate over twenty-eight medicinal plants; a dozen which are used for condiments; twelve useful for dyes and tanning; eight resinous trees; and many large trees which have edible fruits, such as pines in various classes, the cocos, the aguacate, oranges, lemons, mango, and mamey.

There is a great deficiency of native animals of every sort, and especially the entire absence (if our authority can be credited) of those noxious reptiles and insects which seem to inhabit some of the West Indies as their peculiar possession. The island is singularly free from native mammals, with the exception of a single species of agouti, although domestic species, when introduced, have flourished. In the mountains are many birds, including doves and seven other small species; flamingos and other water-birds are numerous along the coast.

There are several species of fish in the fresh water, locally known by the names of liza, robalo, dajau, and guavina. The most interesting thing of the Porto Rican land fauna is the gigantic tortoise, differing only in size from the land-turtle still found on the island of Trinidad and adjoining parts of South America. It is closely allied to the large tortoise of the Galapagos and Mascarene Islands, and to the fossil land-turtles found in Sombrero and Barbuda.

The only geological observations upon the island are those which have been made by P. T. Cleve, a Swedish naturalist. According to him, the hills along the northern coast are fragments of a very thick series of limestone strata which has been cut through by rivulets and by denudation. These are very little inclined, and dip from the axis of the island to the sea at a very low angle. The summits of the high mountains are still covered by the Antillean limestone formations. Near San Juan this covering is soft. In most places it is very hard, and yellowish white in color. These limestones contain fossils which show them to be identical in age with the Tertiary rocks of the other Antilles. Below these limestones there is an older formation visible in the mountainous parts of the interior. This consists of conglomerates and metamorphic rock, very similar to the older rocks of Jamaica (the Blue

Mountain series) and of the Virgin Islands, of which they are probably an extension.

It is probable that the rocks of the littoral are composed in part of elevated coral reef, or seborucco, so common on the other Antillean lands, but this has not been positively determined. Great living reefs abound on the eastern submerged platform along the south coast of the island, about four miles offshore.

According to Cleve, gold is found in loose pieces in the rivers of Sierra Luquillo and Corazal, and mercury in the Rio Grande. Gold was formerly mined by the early Spanish settlers, being found in placer deposits. Its quantity or occurrence cannot be definitely stated at present. Molybdena, magnetic pyrite, manganite, limonite, chrysocolla, epidote, and garnet are the minor minerals found. Specular iron is reported in several places, notably on the Rio Cuyul. Magnetic iron ore is also reported from Gurabo and Ciales. Large, fine crystals of quartz are found in the Rio Prieto; agate of good quality at Kaja de Muestos, and malachite at Rio Blanco. Don Pedro Resano in San Juan has a very fine collection of the minerals of the island, the specimens of which would indicate that a thorough geological survey of the island might be profitable.

Among the natural features of interest in the island are the cave of Aguas-Buenas, in the village of the same name; the grand cave of Pajita Inlares; the cave of Muertos in Utuado; the cascade of Santa Alalla in Bayamon; and the salines of the Cacique in Guanica. There are also many thermal and mineral waters, such as the warm springs of Coamo, Quintana, and others.

In a mountain near the center of the village of Harmigueros is the shrine of Montserrat, which was formerly much visited by the inhabitants of the island, and many from St. Thomas, Santa Cruz, Dominica, Guadeloupe, Curaçao, and Martinique.

Travelers claim that the climate of Porto Rico, although warm, is more agreeable and healthful than that of any of the other Antilles. The average daily temperature is 80° F., but it is ameliorated by a cooling north breeze which generally prevails during the hottest days. The mean monthly temperature of San Juan, as determined by observations extending through twenty years, is 78.9° F. The maximum heat, attained only three times during this period, was 99°, the minimum 57.2°. The thermometer usually rises to 88° F. at midday, and sinks to 80.6° F. at night. In the cool mornings it ordinarily stands at 69.8° F., but sometimes falls as low as 60.8° F. The interior highlands are cooler, and the nights are sometimes disagreeably so, although snow never falls, and hail but rarely. The coolest places on the island are Adjuntas, Aibonito, Cayey, Utuado, Lares, and Maricao.

The hottest months are June, July, August, and September; the coolest, December, January, and February. So far as temperature is concerned, Porto Rico enjoys perpetual summer, the mean monthly temperature hardly varying 6° throughout the year, and the extreme limits being within 40° of each other, instead of 118° as at Washington, D. C.

The disagreeable land winds are seldom felt, though tropical hurricanes are frequent between July and October. The forest-covered central mountains produce a marked difference in the climate between the opposite declivities. The northern side is frequently visited by showers, while the southern district is often without rain for months at a time.

The average rainfall for the past twenty years has been 59.5 inches, or about the same as that of New Orleans, and only six inches less than that of Washington city. The driest month is February, when less than two inches fall. January and March have less than three inches, December less than four. The remaining months, from April to November inclusive, have over five inches of rainfall, the greatest quantity of the year, 7.62 inches, being precipitated in the latter month.

It rains very hard and abundantly during the hottest

ENTRANCE TO SAN JUAN, PORTO RICO

months. This precipitation comes in heavy gusts with strong winds, as a rule between noon and 4 P. M. An hour later the skies appear in beautiful colors of gold, violet, purple, and blue. A bright, cool starlight night usually follows. It seldom rains or thunders at night.

Toward the end of October, east and north winds set in. The first brings heavy downpours, and the latter gentle showers, though the south side of the island is subject to great droughts, to the detriment of agriculture. The great quantity of rainfall is very favorable to vegetation, and creates an infinite number of springs, brooks, and rivers.

Although the climate of Porto Rico does not appear to differ materially, as far as its effects can be measured by instruments, from that of the other Antillean Islands, yet its inhabitants certainly seem to enjoy a more than ordinary exemption from the evils which afflict humanity in these sickly regions. The mortality, according to the published tables, does not exceed that which prevails in some of the more healthful countries of Europe.

The hot and moist climate induces dysenteries and fevers of all kinds, especially intermittent and lingering forms which are very stubborn and sometimes lead to liver complications. Yellow fever occasionally visits the cities of the coast, but mostly in individual cases, and is not always epidemic. Only in certain years, at times of great heat, does it flourish, and even then it principally affects Europeans and newcomers. Its occurrence is probably encouraged by the stagnant sewage of the cities. The natives are subject to colds, catarrhs, consumption, and bronchitis.

The best season to visit Porto Rico and make the acquaintance of the people and country is in the months of January, February, March, and April.

CHAPTER XVI

HISTORY AND ADMINISTRATION

Spanish character of its institutions and peoples. Uneventful course of its progress. Government and administration. Religion and education.

THE island belongs to Spain,[1] to which country it is indebted for its discovery and conquest and present industrial and social status. It was discovered on November 16, 1493, by Columbus, who took possession three days later. The conquest of the island from the aborigines was made in 1508 by Ponce de Leon, who founded, in the year 1509, the first village, near the present capital, which he named Caparra.

According to Colonel Flinter, who seems to have written the best compendium of the island, the early history of Porto Rico, aside from a few attacks by English bucaneers, offers few features of interest. Although one of the oldest colonies of Spain, it served for three centuries as a penal station only, and its free population presented until a few years ago a marked specimen of the besotted ignorance which characterized the Spanish settlements of old times.

The military and civil expenses during these years were defrayed from remittances from Mexico, and it was not until the revolution cut off these remittances, in 1810, that the island, owing to the extreme embarrassment of its financial condition, began to attract the notice of the mother-country. Previous to that time, Spain paid but little attention to her West Indian possessions, except as watering-stations for sailing-ships. Not being outwardly valuable, it attracted little attention, and suffered less from ill government than Cuba, for instance; the result being that the island remained loyal to the home country.

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[1] This was written before the signing of the protocol which gave it to the United States.

In 1815 a decree was published in its behalf, distinguished, like many of the early acts of the restored government, by its enlightened sagacity. This decree, while it greatly encouraged free industries, unfortunately gave an impetus to the employment of slave labor, which had heretofore not been used—not from motives of humanity, but from want of capital and the indolence and poverty of the previous settlers, who were somewhat comparable to the lower white element of our own colonial times. Under this decree, colonists were invited to the island on the most liberal terms. Lands were allotted gratis; the settlers were free from direct taxes, and for a certain number of years from the tithes and *alcabala*, as well as from the exportation duties which formed at that time the most impolitic feature of the old Spanish system. From the period of this decree the prosperity of Porto Rico began, and from then until now the advance in wealth and population has been unexampled even in the West Indies. A great impulse was also given in these early years of the present century by the arrival of Spanish capitalists driven from Santo Domingo and the Spanish Main—men distinguished in the more prosperous times of South America for their regularity and probity in the transaction of business.

In 1870 Porto Rico was made a province of Spain, instead of a colony, thereby acquiring the same rights and government as existed in the mother-country, with representation in the Cortes, elected by universal suffrage. The indisposition to political upheavals has been as conducive to the remarkable prosperity of the island as the excellent climate and soil. The government has been generally placid and tranquil.

The supreme local authority is vested in a governor-general, also designated as military governor. For the government of the troops he has one deputy or military governor. There is also a *diputacion provincial*, or elective council, which constituted a kind of consultative body concerning the welfare of the island. A naval commandant, who is attached to the department of Havana, resides in San Juan; and there are various captains of the ports. The ordinary military forces of the island consist of three battalions of infantry, one of artillery with two mounted sections, fourteen battalions of volunteers, and four of the *guardia civil*, or military police.

There are four courts—the territorial or supreme court, and three criminal courts, one each in San Juan, Mayaguez, and Ponce. There are also various minor justices; each department has a military commandant, and each village an alcalde, representing the government. There is also an intendant-general of hacienda, and a central administration for collecting taxes.

For administrative purposes the island is divided into seven departments, including seventy villages. These departments, named for the chief city of each, and their population, are as follows: Bayamon, 131,116; Arecibo, 124,835; Aguadilla, 86,551; Ponce, 160,140; Guayama, 98,814; Humacao, 82,251; Mayaguez, 116,982.

In 1897, when the so-called system of autonomy was offered to Cuba, Porto Rico received the same. Under it, the island has a premier and House of Representatives, and the other forms of a republican government, but they are all in the hands of a Spanish oligarchy, which controlled the island when it was still a colony.

The official religion of the island is the Roman Catholic, but others are tolerated; there is one Protestant church in Ponce, and one each in a few of the smaller towns.

The bishopric of Porto Rico was founded in 1504 under Pope Julian II, and was the first to be established in the New World. The diocese of the island is divided into many vicarages, with a multitude of curates. There is one bishop, attached to the archbishopric of Cuba; the patronage of the diocese is conferred by the governor-general.

According to the Spanish standard, the condition of public instruction in the island is flourishing. From an American standpoint, judging from the illiteracy of the inhabitants, it is poor. The instruction is divided into primary, secondary, and superior. There are eight of the superior schools for boys, four for girls, and many of the elementary classes throughout the cities and rural districts; there are also many private schools and seminaries, while in San Juan there is a college where courses are given in medicine and law, and a normal school for both sexes. Of the people, three hundred thousand can neither read nor write; illiteracy is greatest among the women. A native writer says that "Porto Rico has literarians, but no literature."

In 1894 there were thirty-five newspapers and periodicals on the island, seventeen of which were in San Juan, seven in Ponce, and eight in Mayaguez.

CHAPTER XVII

TRANSPORTATION, AGRICULTURE, INDUSTRY, AND COMMERCE

Harbors. Railways. Highways. Telegraph. Diversified nature of the agriculture. Large number of small farms. Sugar-estates. Coffee-culture. Meñores. Importance of the cattle industry. Commerce and trade. Bad condition of the currency.

THE harbors of Porto Rico are inferior to those of Cuba, but, locally considered, are good except for a part of the year. In November, December, and January, those of the north coast, with the exception of San Juan, are dangerous on account of the north winds. On the other hand, during the months from June to November, strong southerly winds cause the sea to break with great violence over the anchorage on the southern coast.

The principal ports of the island are San Juan, on the north; Fajardo and Ensenada Honda, on the east; Ponce and Guanica, on the south; and Puerto Real de Cabo Rojo, on the west. Playa, near Ponce, is the largest and best port on the island. There are various other small ports of more or less importance, which need not be mentioned in detail at present.

Of late years, some attempts have been made to improve the harbor of San Juan. Dredging was begun in 1889, and reported to be carried on as fast as material would permit. The entrance to the channel has been widened and deepened to twenty-nine and one half feet, and now there is over twenty-two feet of water along the wharves. This work was done by prison labor, the laborers getting four and one half pence per day.

The island has more or less regular communication by vessels with Spain, England, Cuba, Santo Domingo, St. Thomas, Martinique, Guadeloupe, and South America. Moreover, two lines of steamers circumnavigate it, stopping at the various ports.

Probably no part of the Antilles is more fertile than Porto Rico, and none so generally susceptible of cultivation and diversified farming. A single acre of cane yields more sugar there than in any other of the islands except Cuba. Possessing every variety of tropical landscape, fertile from the mountain-tops to the sea, rich in pasture-lands, shaded with beautiful groves of magnificent palms, moistened by thirteen hundred streams, with here and there a hot spring, its agricultural possibilities are immense.

Porto Rico is essentially the land of the farmer, and the most highly cultivated of the West Indies. In fact, it is the only island where agriculture is so diversified that it produces sufficient food for the consumption of its inhabitants, in addition to vast plantation crops of sugar and coffee for exportation. Furthermore, the land is not monopolized by large plantations, but mostly divided into small independent holdings. Stock-raising is also an extensive industry.

There are in Porto Rico some twenty-one thousand smaller holdings, the property of the peasantry of the interior, who live cheaply and work lazily, but contrive to raise a small quantity of sugar, together with provisions and cattle. If such rough cultivation as this succeeds at all, it can only be in consequence of the vast productiveness of the soil, which gives the planter the same advantage over his brethren to windward and leeward as the settler of Illinois has over the cultivator of the worn-out "old fields" of the Atlantic coast.

The agricultural properties of the island, according to the last census, were distributed as follows: tobacco-farms, 66;

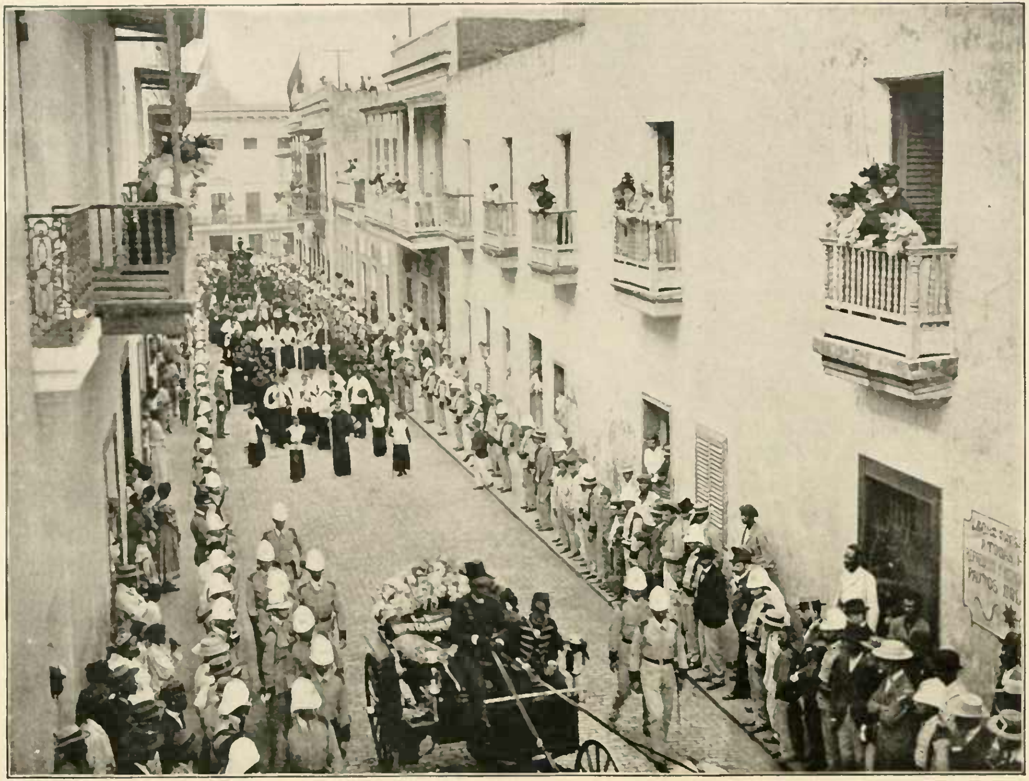
cattle-farms, 240; large coffee-estates, 361; sugar-estates, 433; small coffee-farms, 4184; farms devoted to miscellaneous cultivation, 4376; small fruit-farms, 16,988; and plants for grinding cane, 8.

The export productions are sugar-cane, coffee, tobacco, cocoa, and cotton. Sugar-cane is cultivated mostly on the lower slopes and plains, yielding about six thousand pounds to the acre. Coffee grows in the highlands, in the natural shade of the mountains or in that of the guama-,[1] guava-,[2] bucare-,[3] and maga[4]-trees. Owing to the troubled state of affairs in Cuba, prices for tobacco have increased enormously in Porto Rico. A large amount has been planted, and the crop promises well.

A peculiar variety of upland rice, requiring no form of irrigation or inundation, is commonly cultivated on the hills of the central sierra. This, and yauchia (*Caladium esculentum*) and plantain, which are grown nearly everywhere, are staple foods of laborers. The other fruits and vegetables consumed on the island, and generally classified as *menares*, are the banana, platanos (plantains, which, when baked in the immature state, constitute the bread of the inhabitants), maize, beans, gaudures, and such fruits or vegetables as yams, yautias, sweet potatoes, the mispel (*Achras sapota*), the mango, the mamey (*Mammea*), the guanavana (*Anona*), the aguacate (*Persea*), pineapples, and guayavas (which are very plentiful, and manufactured into confections).

The diversified agriculture of Porto Rico is also varied by extensive pastoral interests, which not only supply the inhabitants with meat, but produce hundreds of cattle of excellent quality for annual export, especially to the Lesser Antilles, which are largely dependent upon Porto Rico for meat as well as for work-oxen. Martinique, Guadeloupe, St. Thomas, and Cuba are the chief consumers. The pasture-lands are superior to those of the other Antilles. These lie mostly on the north and east sides of the island, and are covered with a nutritious leguminous plant called

[1] *Inga laurinea.* [2] *Inga vera.* [3] *Erythrina bucare.* [4] *Thespesia grandiflora.*



A STATE FUNERAL, SAN JUAN, PORTO RICO

malahojilla (*Hymenachine striatum*), which the cattle consume.

Small but hardy horses are also common. Some efforts have been made to improve them by the introduction of American breeds. The smaller domestic animals also abound, especially poultry.

The principal agricultural exports in 1896, according to the British consul, were:

ARTICLES.	QUANTITY.	ARTICLES.	QUANTITY.
Sugar ....tons..	54,205	Timber ....tons..	30
Coffee .... " ..	26,655	Molasses .... " ..	14,740
Hides .... " ..	169	Tobacco .... " ..	1,039
Cattle ....head..	3,178		

There are one hundred and thirty-seven English miles of railroad in operation, besides one hundred and seventy miles under construction. A contract was made in 1888 to encircle the island with a railroad. A Spanish company was formed in Madrid, and the government guaranteed eight per cent. on the capital for six years, the capital not to exceed two million pounds. The length of the road was to be two hundred and eighty-three miles. One hundred and nineteen miles were built by 1892, but little has been done since, and the government refused to renew the contract. Among the lines in operation are those from San Juan to La Carolina, 14 miles; from San Juan to Camuy, 61.5 miles; from Aguadilla to Mayaguez, 14⅛ miles; and from Yauco to Ponce, 20.5 miles.

One may travel by highways with a fair amount of comfort all over the island. The Spaniards generally are poor road-builders, but in this island have done better than in Cuba. Many of the roads, in fact, are excellent. The towns are connected by highways which develop around the peripheries of the island quadrilateral. There is also a second quadrilateral system, which is united at intervals with the outer system by transverse routes.

There are four hundred and seventy miles of telegraph line under government control, and the principal cities have telephone service.

The trade of Porto Rico with other countries of importance is about a sixth of that of Cuba. In 1895 (according to the "Estadistica General del Comercio Exterior") it was as follows:

COUNTRY.	IMPORTS.	EXPORTS.
Cuba	$808,283	$3,610,936
Lesser Antilles	1,709,872	625,010
United States	1,506,512	1,833,544
Spain	8,572,549	5,824,694
England	1,765,574	1,144,555
France	251,984	1,376,087
Germany	1,368,595	1,181,396
Other European countries	371,485	828,709
Total	$16,155,056	$14,629,494

The foregoing figures show a balance of trade against the island of $1,525,562, which was largely due, no doubt, to the disturbances of the Cuban trade. "The Statesman's Yearbook" gives quite different statistics, showing an excess of exports over imports amounting to about $1,650,000.

The principal articles of foreign commerce in 1895, according to the "Estadistica General del Comercio Exterior" of Porto Rico (the latest published), were as follows:

IMPORTS

ARTICLES.	VALUE.	ARTICLES.	VALUE.
Coal	$119,403	Flour	$982,222
Iron	224,206	Vegetables	192,918
Soap	238,525	Olive-oil	327,801
Meat and lard	1,223,104	Wine	305,656
Jerked beef	133,616	Cheese	324,137
Fish	1,591,418	Other provisions	171,322
Rice	2,180,004	Tobacco (manufactured)	663,464

EXPORTS

ARTICLES.	VALUE.	ARTICLES.	VALUE.
Coffee	$8,789,788	Sugar	$3,747,891
Tobacco	646,556	Honey	517,746

Owing to the trouble with the currency, the rate of exchange is high, running, in 1894, from three to five cents on the dollar. The Mexican dollar became the currency in 1878, with a value of ninety-five cents in Spanish money and one silver dollar in United States money. The American silver dollar depreciated in other markets, but found circulation in Porto Rico, until all the gold and Spanish dollars disappeared. In 1885 the government forbade the importation of Mexican dollars, and declared illegal Mexican coins of previous dates. Then the dates of the dollars were falsified, and they still circulated until the Mexican dollar became the only currency.

The industries of the island are limited to the preparation of the sugar and coffee for market, and the manufacture of tobacco, chocolate, wax, soap, matches, rum, and straw hats; there are also three foundries for the manufacture of iron machinery.

CHAPTER XVIII

THE PEOPLE

Statistical details of number, sex, nativity, race, and literacy. Excess of males. Small proportion of foreign people. Divisions into classes. The "Spaniards" (white Porto Ricans). The gibaros, or peasantry. The negroes. Former conditions of slavery in Porto Rico.

THE number, sex, nativity, race, and literacy of the population of Porto Rico, according to the latest census obtainable, that of 1887, are shown in the accompanying table.

Some of the essential features of the statistics are as follows: The small proportion of foreigners, less than one per cent., shows how thoroughly the population has become indigenous. Another peculiar feature is that the white race outnumbers the combined black and colored people, proving that Porto Rico, at least, has not become Africanized, as have all the other West Indies excepting Cuba. Eighty-seven per cent. of the people are illiterate, like the mass of the peasantry of the mother-country, from whom they have descended.

The population of the island by natural increase has multiplied two and one half times since the census of 1830, the whites having tripled and the black and colored doubled their numbers. The density of 221 to the square mile is equal to that of many of the European countries, although

CLASSIFICATION OF THE INHABITANTS OF PORTO RICO AT THE LAST OFFICIAL CENSUS OF DECEMBER 31, 1887, BY (*a*) DEPARTMENT; (*b*) NATIVITY; (*c*) RACE; (*d*) LITERACY

DEPARTMENT.	FEMALES.	MALES.	TOTAL.
Bayamon	65,353	65,763	131,116
Arecibo	62,410	62,425	124,835
Aguadilla	42,910	43,641	86,551
Mayaguez	58,635	58,347	116,982
Ponce	81,612	78,528	160,140
Guayama	49,087	49,727	98,814
Humacao	41,089	41,162	82,251
Vieques (Island)	3,191	2,828	6,019
Total	404,287	402,421	806,708

NATIVITY	FEMALES.	MALES.	TOTAL.
Spanish (Porto Rico)	401,078	399,885	800,963
Foreigners	3,209	2,536	5,745
Total	404,287	402,421	806,708

RACE	FEMALES.	MALES.	TOTAL.
White	242,982	237,285	480,267
Colored	122,434	126,155	248,690
Black	38,770	38,981	77,751
Total	404,287	402,421	806,708

LITERACY	FEMALES.	MALES.	TOTAL.
Able to read and write	57,216	39,651	96,867
Able only to read	5,662	8,851	14,513
Illiterate	341,409	353,919	695,328
Total	404,287	402,421	806,708

only one fourth that of Barbados. Apparently the island has attained a sufficient number of people in proportion to its capacities.

The aborigines of Porto Rico, of Arawak or Carib stock, were largely exterminated in 1811, immediately after an uprising on their part against the Spanish soldiers. The survivors, enslaved, quickly vanished. The race was not very numerous. Espinosa, the ethnologist, says that at the present time no people of this race can be found, except a few individuals whose hair and color would indicate a mixture of Indian and negro.

The native people, as a whole, may be divided into four classes: the better class of creoles, who call themselves Spaniards; the lower class of white peasantry, known as *gibaros;* the colored people, or mestizos; and the blacks.

The Porto Rican Spaniards of the upper class, in point of connections and respectability, are the descendants of military men who, during the long period when the island was a mere garrison, formed alliances and settled within it. These people maintain the pride of their descent with all the stateliness of grandees, and some of them are opulent. This class, of white blood and Spanish feelings, opinions, and prejudices, so widely different from what is to be found in the British or French islands, forms the distinctive feature of the population.

They are a good-looking, happy, and prosperous set of people, and they have had the time and taken the trouble to acquire some education. They constitute the commercial, professional, and planter classes. The ladies are handsome and refined, and as strictly secluded as in other Spanish countries. Their goodness of heart and unaffected frankness with their friends are charming. Those of gentle birth and breeding are sweet and flower-like, with the bright alertness of a Latin woman transplanted to American soil and climate. Their glances are swift and meaning, and their great black eyes full of expression. Their features are regular. They are petite of form and have small hands and feet, and dress in Parisian styles, although these styles are usually a year or two old by the time they reach Porto Rico.

As has been remarked, the peasants show clearly their Andalusian origin. Although indolent, they are sagacious, and skilful in conversation, fond of eating and drinking, and free in their customs, manners, and morals, as judged by our standard. The poorest gives his best to the passing stranger. They are not disposed to continuous labor, however; nor is this necessary in so prolific a land. Without much ambition or thought for the future, they are content to live for the passing to-day.

In the country the poorer classes are mainly engaged in the business of planting; others live from hand to mouth in the towns or cities. The former live as nearly in a state of nature as the laws will allow, for the simple reason that it pleases them best and is comfortable. The children generally don the garb of civilization at or near the age of ten or twelve. In the interior district the coffee-laborer is paid in plantains; fifty plantains are a day's pay, and on this he feeds his family and then sells the rest, losing one day per week in going to market, often twenty miles away. The people are very fond of amusements, principally gambling, in which they squander their substance. The gambling habit is common to all classes, from the rich planter and priest down to the lowest beggar.

Colonel Flinter, the historian of the island, has described the gibaros as like the peasantry of Ireland, proverbial for their hospitality; and, like them, they are ready to fight on the slightest provocation. They swing themselves to and fro in their hammocks all day long, smoking their cigars, and scraping a guitar. The plantain-grove which surrounds their houses, and the coffee-trees which grow almost without cultivation, afford them a frugal subsistence. The cabins are thatched with the leaves of the palm-tree; the sides are often open, or merely constructed of the same kind of leaves as the roof, such is the mild-ness of the climate. Some cabins have doors, others have none. There is nothing to dread from robbers, and if there were bandits, poverty would protect the people from violence. A few calabash-shells and earthen pots, one or two hammocks made of the bark of the palm-tree, two or three game-cocks, and a machete form the extent of their movable property. A few coffee-trees and plantains, a cow and a horse, an acre of land in corn or sweet potatoes, constitute the property of what would be denominated a comfortable gibaro, who, mounted on his meager and hard-worked horse, with his long sword protruding from his baskets, dressed in a broad-rimmed straw hat, cotton jacket, clean shirt, and check pantaloons, sallies forth from his cabin to mass, to a cock-fight, or to a dance, thinking himself the most independent and happy being in existence.

A reviewer has noted that the descriptions of character which Colonel Flinter has given do not show any symptoms of the industry which he elsewhere attributes to the husbandmen of Porto Rico. But it is quite clear that the spread of these tropical backwoodsmen over the virgin soil of the island has prevented it thus far from falling into the hands of the sugar-monopolist; and it furnishes a sufficient answer to those who imagine that a European race, living by its own labor, cannot exist where 80° is the average height of Fahrenheit's thermometer. With the gradual diffusion of education, of which there is a lamentable deficiency, much of the grosser part of the character of the peasantry may be progressively removed.

The negroes of Porto Rico are in a minority; they do not form a very considerable part of the population, and are not distinguished by marked characteristics. With the gibaros they form the laboring class of the island, and seem thoroughly contented with their lot, which, as in Cuba, is much better than that of the negroes in the French, English, and independent islands.

In our description of the negro and colored populations of Cuba we have alluded to the social status and traits of

UTUADO

PLAZA AND CATHEDRAL AT ARECIBO

PALMS NEAR SAN JUAN

PORTO RICO

these people in the Spanish colonies, which are so different from those of the blacks in our own country and the French and British islands of the West Indies. The race question is a difficult one to discuss, for, like the taboo, race prejudice is possessed by all, though explicable by none. I cannot tell why the Spanish man of color does not affect the prejudice against the negro which I feel in my own and other countries. I only know that the former is of a different class. There is some reason for his superiority, however, and perhaps it may be due to the following facts of history gleaned from an old volume of the "English Review."

As far back as 1834 the free colored inhabitants of Porto Rico were by far more numerous than in any other West Indian island; and this fact alone—when we consider the ineradicable prejudice attached to color, which has brought such misery and social discomfort over a great part of the world—speaks volumes for its people and their government. The whole British West Indies contained, before 1834, not more than eighty thousand free colored inhabitants, in a population of ten times that number; of these, sixteen thousand were to be found in Trinidad alone, an island which had long been governed by Spanish laws. Although white blood is in Porto Rico, as everywhere else beyond the Atlantic, a patent of nobility, yet the gibaro no more treats with contempt and contumely his inferior in caste than the grandee of old Spain his inferior in station.

But the good treatment of the slaves was the basis upon which the polity of the island formerly rested. Small as was their number, we may safely say that, in every community in which slavery was recognized, it gave a character to the whole society; the people in general were licentious, cruel, disorderly, according to the estimate they formed of the lowest class.

It was while avarice ruled the earlier conquerors of America, and seduced them into practices revolting to human nature, that the foundations were laid of a code of laws, both for slaves and for the native Indians, the spirit of which has ever prevailed among the Spanish creoles, and which shames nations that arrogate to themselves the title of enlightened. Shallow thinkers have often entertained the paradox that free states show less humanity in their colonies than is shown in those under absolute monarchies. Of all West India annals, those of the French islands before the revolution were perhaps the most darkly stained with cruelty, and their quondam slaves, the Haitians, are now the lowest of the West Indian negroes. The free states of South America, on the other hand, have not only followed, but have still further extended, in the midst of their anarchy and factional fighting, those principles of Christian mercy and justice toward the black man which Spain alone, until recently, knew and practised.

By the Spanish laws, the hours of labor, the amount of food and clothing, and various other particulars in the treatment of the slaves, were minutely and humanely specified. Owners were obliged to have their slaves instructed in the elements of Christianity, so that they could be admitted into the church by baptism within a year after their importation. Twenty-five stripes formed the maximum of punishment. The regulations for the encouragement of marriage were so favorable to the slaves that they often proved burdensome to the owner. These are only a few items of a clement code which seems to have been so seconded by the natural humanity of the people as to have left as little of misery and shame attached to servitude as was compatible with its miserable nature.

Finally, when emancipation was given (in 1873), the industry of the Spanish islands, alone of all the West Indies, survived the effects, the planters being able to continue their agricultural operations without financial ruin and social disorganization.

The prosperity of Porto Rico is shown quite as much in its increased population as its general material progress.

Since the middle of the last century the social condition of the inhabitants has undergone a complete change. At that time there were no towns, and the inhabitants assembled only on feast-days at the central point in each parish. They dwelt in rude hovels, and their only utensil was the calabash. An empty bottle was handed down as an heirloom to the favorite son. At present, more than one half of the inhabitants have gravitated toward the towns, especially those on the seaboard, and trade has familiarized them with modern inventions.

CHAPTER XIX

CITIES OF PORTO RICO

San Juan. Ponce. Mayaguez. Aguadilla. Arecibo. Fajardo. Naguabo, Arroyo, San German, and small towns. Islands attached to the government of Porto Rico.

PORTO RICO has many centers of population, including the chief cities of San Juan, Ponce, and Mayaguez, and over fifty smaller towns which are the centers of small departments having a population of from six to thirty thousand inhabitants. The population is so dense that, with the exception of the unsettled area of the highest portions, the island presents the aspect of a continuous series of farms and small villages. The people center in towns and villages, whence the laborers proceed to the fields to work. All the towns are built upon the same general plan, with ornately colored, stuccoed houses, roofed with red tiles, usually narrow streets, and always an attempt at a central park or plaza with gardens, benches, and promenades. Some of these towns, like San German and Aguada, date back to 1511; a larger number were built during the eighteenth century. Nearly twenty of the towns originated within the present century, however, showing that the urban development of the island has not been retarded.

In the present chapter we shall describe the larger commercial cities, which are mostly seaports.

San Juan Bautista de Puerto Rico, as the capital of the island is officially designated, is situated near the east end of the north coast, on an island united to the mainland by the bridge of San Antonio. It is the oldest settlement on the island, having been founded in 1511. The main portion of the city lies on a long and narrow island shaped much like an arm and a hand; it is about two and a quarter miles long, and averages less than one fourth of a mile in width. The greatest width is a little over half a mile, in the portion representing the hand, which also contains the major part of the city. This is separated from the mainland at one end by a shallow arm of the sea. A bridge connects the city with the mainland, which runs out at this point in a sand-spit, some nine miles in length. At the other end, the island ends in a rugged bluff or promontory, some hundred feet high and three fourths of a mile distant from the main shore. This promontory is crowned by Morro Castle, the principal fortification.

At the north the entrance to the harbor is a narrow channel with rocky bottom, so close under the headland that one can almost leap ashore from a passing vessel. The water here is some thirty feet deep. To a mariner unacquainted with the locality, or to any mariner when a norther is blowing, this entrance is one of difficulty and danger. After rounding the bluff, one finds a broad and beautiful bay, landlocked and with a good depth of water, which is being increased by dredging. It is by far the best harbor in Porto Rico, but it has its drawbacks. Sailing-vessels are frequently detained by the northerly winds during the winter months, and even steamers with a draft of over twenty feet are sometimes delayed; but these occasions are rare. When these storms occur, the *boca*, or entrance to the harbor, is a mass of seething, foaming water, and presents an imposing spectacle. To see steamers of sixteen to eighteen feet draft enter in a severe norther is a sight to be remembered, as the great waves lift them up and seem about to hurl them forward to destruction.

At such times there is need of a stanch vessel, steady nerves, and a captain well acquainted with the channel, as no pilot will venture out.

San Juan is a perfect specimen of a walled town, with portcullis, moat, gates, and battlements. Built over two hundred and fifty years ago, it is still in good condition and repair. The walls are picturesque and represent a stupendous work and cost in themselves. Besides the town within the walls, there are small portions just outside, called the Marina and Puerta de España, containing two or three thousand inhabitants each. There are also two suburbs—one, San Turce, approached by the only road leading out of the city, and the other, Cataño, across the bay, reached by ferry. The Marina and the two suburbs are situated on sandy points or spits, and the latter are surrounded by mangrove swamps.

The city has several important and imposing fortifications, which were commenced in the year 1534, the oldest of which is San Catalina; Morro Castle, the principal defense, was built in 1584; and Cañuelo and San Cristobal were finished in 1751. Against the seaward front of the massive walls of the Morro the ocean pounds and thunders. A broad parade-ground is inclosed within the walls westward from the citadel, and not far off is the largest house of the city—no less a structure than the ancient castle of Ponce de Leon. His ashes are also kept here in a leaden case.

Inside the walls, the city is laid off in regular squares, six parallel streets running in the direction of the length of the island, and seven at right angles. The streets are wider than in the older part of Havana, and will admit two carriages abreast. The sidewalks are narrow, and in places will accommodate but one person. The pavements are of a composition manufactured in England from slag; pleasant, even, and durable, when no heavy strain is brought to bear upon them, but easily broken, and unfit for heavy traffic. Three streets beautifully shaded by trees are known as the Princesa, Puerto de Tierra, and Govadonga; four spacious plazas with seats are provided for recreation. The streets are swept daily by hand, and are kept very clean.

Among the large and imposing public buildings are the casino, the Casa Blanca, the cathedral, the administrative building, the barracks of Balaga, the Casa de Beneficencia, the seminary, the theater, the Intendencia, the Diputacion Provincial, the institute, the Real Audiencia, the *aduana* or custom-house, the residence of the military governor, that of the captain of the port, the Presidio Provincial, the San Geronimo, the Santa Elena, the Carmelite convent; the churches of San José, San Francisco, La Capilla, Santa Ana, Ermita del Santo Cristo, and St. Augustine; the civil hospital, the College of the Sacred Heart of Jesus, the public warehouses, the Yacht Club, the railway-station, the Bank of Spain and Porto Rico, the office of the administrator-general of communications, and the Hotel Inglaterra. There are also many large stores and shops, tastefully arranged, and filled with all kinds of European goods.

The residences occupied by the more respectable people are the upper floors of the two-story buildings, while the ground floors, almost without exception, are given up to negroes and the poorer class, who crowd one upon another in the most appalling manner. One small room, with a flimsy partition, will house a whole family.

There is but little manufacturing, and it is of small importance. The Standard Oil Company has a small refinery across the bay, in which crude petroleum, brought from the United States, is refined. Matches are made, some brooms, a little soap, and a cheap class of trunk. There are also ice, gas, and electric-light works. In 1892 a contract was made with a London company to build an aqueduct for supplying the city with water. The municipality guaranteed seven per cent. interest on the cost, not to exceed ninety thousand pounds, to be finished in two years. Floods and other difficulties have prevented its completion. A British company was formed in 1875, with a capital of thirty-six thousand pounds, and given a monopoly of twenty-five years for lighting the public streets with gas. This undertaking was not successful, and in 1897 a New York company was organized to construct an electric-light plant. The same company also obtained a concession for electric cars.

The port is constantly visited by a multitude of sailing-vessels and steamers of all nationalities, while telegraph, railways, and coasting-vessels afford free communication with all parts of the island.

The city has a board of trade and several local insurance societies. As usual in Spanish cities, many social organizations exist, the principal object of which is pleasure, although they are nominally founded upon a benevolent basis. Among these are the Society for the Protection of Intelligence, the Grand Economic Society, and the Friends of Peace. Others have simpler names, such as the Athenæum, the Casino Español, the Casino de San Juan, etc. The principal benevolent institutions are the orphan asylum, having two hundred and seventy children under its care; the College of St. Ildefonsa, for the education of poor children; the military hospital, the insane asylum, the maternity hospital, and the Hospital of Santa Rosa.

The entire population of the city and suburbs, according to the census of 1887, was twenty-seven thousand. It is now (1898) estimated at thirty thousand. One half of the population consists of negroes and persons of mixed race. The population within the walls is estimated at twenty thousand, and most of it lives on the ground floor.

From its topographic situation the town should be healthful, but it is not. The ground floors reek with filth, and conditions are most unsanitary. In a tropical country, where disease readily prevails, the consequences of such herding may be easily inferred. The soil under the city is clay mixed with lime, so hard as to be almost like rock. It is consequently impervious to water and furnishes a good natural drainage. The town is unprovided with running water. The entire population depends upon rain-water, caught upon the flat roofs of the buildings, and conducted, in every case, to the cistern, which occupies the greater part of the inner courtyard that is an essential part of Spanish houses the world over, but that here, on account of the crowded conditions, is very small. There is no sewerage, except for surface-water and sinks, while vaults are in every house and occupy such space as there may be in the patios not taken up by the cisterns. The risk of contaminating the water is very great, and in dry seasons the supply is entirely exhausted. Epidemics are frequent, and the town is alive with vermin, fleas, cockroaches, mosquitos, and dogs. Just under the northern wall of the Castle of San Juan is the public cemetery, the gate being overhung by an ornate sentry-box. The bones of evicted tenants of graves, whose terms of tenancy have expired, are piled in the corner of the inclosure—a most revolting and unsanitary practice.

The trade-wind blows strong and fresh, and through the harbor runs a stream of sea-water at a speed of not less than three miles an hour. With these conditions, no contagious diseases, if properly taken care of, could exist; without them the place would be a veritable plague-spot.

Ponce, near the south shore, is about ninety miles southwest from San Juan by a fine road running diagonally across the island. This city, founded in 1752, has fifteen thousand inhabitants, and is second only to San Juan in population. It has a large adjacent rural population, numbering twenty-eight thousand people.

The city is on a plain about two miles from the suburban seaport of Playa, with which it is connected by a fine highway. Playa has about five thousand inhabitants, and here are situated the custom-house, the office of the captain of the port, and all the consular offices. The port is spacious and will hold vessels of twenty-five feet draft.

The physical aspect of Ponce is the most picturesque on the island, on account of the beautiful plains which surround it, and the elegant and ornate structures of the inhabitants.

The plaza known as Las Delicias has pretty gardens and an ornate Arabian kiosk. There is a cathedral at Ponce, and a Protestant church. White-gypsum quarries are worked, and there are medicinal baths, the warm waters of which are recommended for cutaneous diseases. The city is regularly built, the central part almost exclusively of brick houses, and the suburbs of wood. The houses, all built of stone, are very similar to those in San Juan. It is the residence of the military commander, and possesses a chamber of commerce. There is an appellate criminal court, besides other courts; two hospitals besides the military hospital; a home of refuge for the old and poor, a perfectly equipped fire department, a bank, a theater, three first-class hotels, and gas-works. The city has an ice-machine; also establishments for hulling coffee, distilling rum, and manufacturing carriages, and a large sugar-grinding plant. There are one hundred and fifteen vehicles for public conveyance. The inhabitants are principally occupied in mercantile pursuits; but carpenters, bricklayers, joiners, tailors, shoemakers, and barbers find good employment. The chief occupations of the country people are the cultivation of sugar, cocoa, tobacco, and oranges, and the breeding of cattle.

The climate, on account of the sea-breezes during the day and land-breezes at night, is not oppressive, though warm; and as water for all purposes, including the fire department, is amply supplied by an aqueduct, Ponce is perhaps the most healthful city on the island.

The commercial city of Mayaguez, the third in importance, was founded in 1752. It is situated in the western part, facing the Mona Passage. The population is nearly twenty thousand, the majority white. Of industries there is little to be said, except that there are three manufactories of chocolate, for local consumption. Sugar, coffee, oranges, pineapples, and cocoanuts are exported largely—all, except coffee, principally to the United States. Of sugar, the muscovado goes to the United States and the centrifugal to Spain. Mayaguez is the second port for coffee, the average annual export being one hundred and seventy thousand hundredweights. The quality is of the best, ranging in price with Java and other first-rate brands. The lower grades are sent to Cuba. About fifty thousand bags of flour are imported into this port every year from the United States, out of the one hundred and eighty thousand bags consumed in the whole island.

The climate is excellent, the temperature never exceeding 90° F. The city is connected by tramway with the neighboring town of Aguadilla, and a railroad is being constructed to Lares, one of the large interior towns.

Near the city is a beautiful plain watered by the Rio Mayaguez, and which, like the country around San Juan and Ponce, is noted on the island for its fine state of cultivation. This is said to have been the place of disembarkation of Columbus on his second visit to the island in 1493. Most of the people are engaged in commerce.

Aguadilla, founded in 1775 (population five thousand), is the principal town and the port of Aguadilla district, in the northwest portion of the island, and is noted for its fish, cane, sweet oranges, and lemons. The village has beautiful trees surrounded by choice grazing-lands; it has a pretty plaza divided into four parts, in each of which is a little garden with a statue in its center. The cultivation of sugar-cane, coffee, tobacco, and cocoanuts, and the distillation of rum from molasses, are the industries of the neighborhood. In the town are three establishments for preparing coffee for exportation. The climate is hot, but healthful; yellow fever almost never prevails.

Arecibo, which is locally known as the most loyal town, was founded in 1788, and is a thriving place of seven thousand inhabitants. It is situated on the north coast of the island, facing the ocean and adjoining an extensive sandy beach bathed by the waters of the Atlantic. In the adjacent lands along the river Arecibo are valuable plantations of coffee, sugar, etc. There are also fine pastures near here. From an ornamental central plaza, surrounded by public buildings, the streets run at right angles, forming regular squares. The buildings are constructed of wood and brick. The city has a large church, a good theater, and pleasing public buildings. From Arecibo a road leads to the cave of Consejo, framed by a multitude of irregular arches which pierce the rock and which are lined by many crystallizations of calcite.

The harbor is poor, being nothing more than an open roadstead exposed to the full force of the ocean, in which vessels, during northerly winds, can hardly lie in safety. Close inshore, on one side, stretch dangerous reefs, a constant menace to vessels if their anchors do not hold. Into this harbor empties a narrow and shallow stream called the Rio Grande de Arecibo. Goods are conveyed on this river to and from the town in flat-bottomed boats, with the aid of long poles, and by dint of much patient pushing. At the bar of the river everything is again transferred into lighters, and thence to vessels. It is a tedious and expensive process. However, Arecibo is quite an important port, and has tributary to it a large district of some thirty thousand inhabitants. The want of good roads on the island makes such a place as Arecibo far more important than it would otherwise be.

Fajardo, founded in 1774, is on the east coast of the island, and has a population of 8779 according to the last official statistics (December, 1887). The port is handsome, with a third-class lighthouse at the entrance, at the point called Cabeza de San Juan, and a custom-house open to all commerce. The town is about one and a quarter miles from the bay. The only important industry of the district is the manufacture of muscovado sugar, to which most of the planters devote themselves. Shooks, hickory hoops, pine boards, and provisions come from the United States in considerable quantities. Sugar and molasses are exported, and occasionally tortoise-shell. The climate is temperate and healthful.

Naguabo (on the east side) has only about two thousand inhabitants, and in the harbor there is another smaller place, called Playa de Naguabo, or Ucares, with about fifteen hundred. The capital of the department, Humacao, is nine miles from Naguabo, and has four thousand inhabitants, the district comprising more than fifteen thousand. This department contains many fruit- and cattle-farms, and also grows much coffee. The lands are well irrigated by streams.

Arroyo, in the district of Guayama (southeast portion), is a small seaport of about twelve hundred inhabitants. The annual exports to the United States average seven to ten thousand hogsheads of sugar, two to five thousand casks of molasses, and fifty to one hundred and fifty casks and barrels of bay-rum. It is surrounded by a fertile country devoted to the cultivation of sugar-cane.

San German, situated on the large hill near the river Guanajibo, founded in 1511, is in a district having a population of 19,887 people, many of them well-to-do. There are three public plazas, on one of which is the church, with altars of marble, and an antique convent belonging to the Dominicans. The city has a seminary, hospital, and other institutions. The adjacent lands formerly produced large crops, but have deteriorated; nevertheless, they are still more or less productive.

Many villages of the interior are situated in the highlands and noted for their cooler temperature, shade, and waters. Among these are Aguas Buenas, surrounded by coffee- and fruit-gardens; Cidra, with its beautiful forests and tall trees; Cayey, in the central cordillera, nestled amid pretty forests and farms of rice and coffee; Barros, near the center of the island, noted for its coffee, woods, and excellent cattle.

Adjuntas is also situated in the central cordillera, and its topographic position gives it fresh air. In this vicinity a number of beautiful streams run in all directions through fertile valleys, while the adjacent elevated mountains are covered with coffee- and fruit-farms.

Aibonito is one of the highest villages in the island, and has a very refreshing temperature. The surrounding country produces large quantities of excellent coffee.

Rio Piedras, in a clay and limestone district, boasts a resort known as La Convalecencia, which is frequented by the governors-general. Caguas has beautiful pastures, sugar-estates, and fruit-farms; also quarries of marble and lime. Bayamon is proud of a fine iron bridge, a small iron-factory, and a petroleum-refinery. Anasco, on a river of the same name, has a large sugar-grinding plant, and the fertile surrounding country produces large crops of beans, vegetables, sugar, and coffee. Aguada, founded in 1511, also claims to be the most ancient village on the island; the adjacent lands are of fine quality. Another large sugar plant is situated at this village.

Of the smaller towns and villages of Porto Rico little can be said. They are numerous and scattered throughout the island, each being the center of an agricultural community; each contains its plaza, church, administrative building, and a few stores, together with the usual assemblage of lawyers, doctors, and other professional men, including the *escribaños*, or professional letter-writers for the illiterate. There are also blacksmiths and wheelwrights. Few of these towns have hotels or other accommodations for the traveler. Private entertainment is so customary and hospitable that the native always finds a friend who gladly entertains him.

ISLANDS ATTACHED TO THE GOVERNMENT OF PORTO RICO

There are three small islands adjacent to Porto Rico, which constitute parts of its political organization. These are Mona, on the west, and Culebra and Vieques, on the east. These all rise in line with the Antillean trend from the same submerged platform, and are probably remnants of once more-connected masses of land.

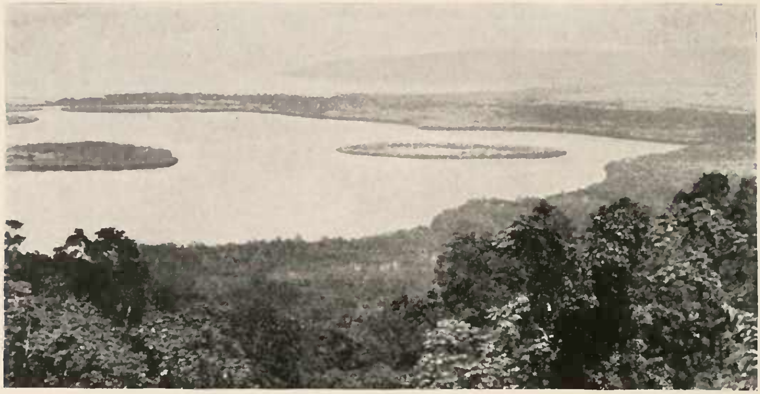
Dependent on the department of Mayaguez is the island of Mona, which gives its name to the broad channel flowing between Porto Rico and Santo Domingo. It is surrounded by perpendicular cliffs, white in color, about one hundred and seventy feet high, full of holes, and with numbers of grottoes or caves. Mona terminates on the west in a bold headland topped by a huge overhanging rock known to seafarers by the suggestive name of Caigo-o-no-Caigo ("Shall I fall or not?"). The neighboring islet has been christened Monito, the "Little Monkey."

Vieques and Culebra are known as the Islas de Pasaje, because they lie in the passage between Porto Rico and the Virgin group. Culebra Island, the more northern of these, is two leagues long and one league wide, and has a population of five hundred; its products are principally minor fruits, which are sent mostly to St. Thomas. The island has no running streams, but water is supplied by a public cistern.

The island of Vieques, known otherwise as Crab Island, about thirteen miles east of Porto Rico, is to that island what the Isle of Pines is to Cuba. The principal settlement is located on a bay on the southeast side. The island is twenty-one miles long and six wide. Its land is very fertile and adapted to the cultivation of almost all the fruits and vegetables that grow in the West Indies. Cattle are raised and sugar cultivated. It has a population of some six thousand. The people are very simple folk and poorly educated. The town Isabel Segunda is on the north, and the port is unsafe in times of northerly wind, like all the anchorages on that side; the few ports on the south are better, the best being Punta Arenas. Not long ago there were two importing and exporting houses on the island of Vieques; but, on account of the long period of drought and the high duties on imported goods, trade has decreased to local consumption only. All supplies are brought from San Juan, the majority being of American origin. The climate is fine and may be considered healthful; there have never been any contagious diseases.

In conclusion, we may add that it is by no means certain that there will be great opportunities for the acquisition of wealth in Porto Rico, by the exploitation of either the agricultural or mineral resources by emigrants of the United States. The conditions that have prevailed for centuries cannot be changed in a day. The lands to which titles have been held for hundreds of years cannot be alienated in a short time. Even the lands which may be won to our government by right of conquest will have to remain inaccessible for a time.

PORT ROYAL FROM THE SEA



ROCK COAST AND PSEUDO-ATOLLS, MONTEGO BAY

HARBOR OF PORT ROYAL

JAMAICA

CHAPTER XX

JAMAICA

Geographical features of the island. Its central position in the West Indies. The Blue Mountain scenery. The limestone plateau. The coast border and plains. Flora, fauna, climate, sanitation.

ALTHOUGH Jamaica is not more richly endowed by nature than Cuba, Porto Rico, and Santo Domingo, yet, because of the administration of a beneficent government, it ranks as the most beautiful and salubrious of the four Great Antilles. Here alone has a stable and civilized government been established, which has permitted the development of the possibilities of the soil and climate, and, by enforcing sanitation, education, and public order, has enabled us to see how high a degree of culture may be attained in the West Indies.

Jamaica is an elevated prolongation of the submerged bank which extends southwestward from the island of Santo Domingo, and lies entirely south of the main Antillean ridge formed by Cuba, Santo Domingo, and Porto Rico, and five degrees south of the latitude of Havana. It is south of the western half of the Sierra Maestra coastline of Cuba, from which it is sixty-five nautical miles distant. Between these islands is the eastward prolongation of the great Bartlett depression, three thousand fathoms deep. The eastern coast is about the same distance from Cape Tiburon, the western point of Haiti, and is separated therefrom by one thousand fathoms of water. On the south lies a wide stretch of the Caribbean Sea, two thousand fathoms deep. Cape Gracias á Dios, on the western coast of Honduras, the nearest Central American land, is seven hundred and eighty nautical miles distant. To the southwest extend the Rosalind and Pedro banks, less than five hundred fathoms deep, which constitute an extensive shallow submarine platform connecting Jamaica with the Central American littoral.

The island is at almost the exact center of the great American Mediterranean. It lies just half-way between Galveston and the mouth of the Orinoco, the southern point of Florida and the northern part of South America, the eastern end of the Antilles (St. Thomas) and the western indentations of the Gulf of Honduras, and the most northern of the Bahamas and the Gulf of Atrato. This position is important from political, geographic, biologic, and geologic points of view, and makes the island a typical base of study for one interested in Antillean problems.

Its outline is that of an elongated parallelogram whose corners have been obliquely truncated, resulting in a wide oblong area from whose east and west ends project two broad peninsulas. Its extreme length is one hundred and forty-four miles; its greatest width is forty-nine miles; its least width, twenty-one and a half miles, between Kingston and Annatto Bay. Its longest axis lies in an east-and-west direction. The area is 4207$\frac{1}{6}$ square miles—less than one tenth that of Cuba, and five hundred square miles greater than that of Porto Rico.

From the sea Jamaica appears as a group of mountain summits rising sharply above the expanse of water in a tangled mass of forest-covered land, apparently without systematic types of relief by which its configuration can be classified. The higher summits of the eastern end are usually veiled in clouds, so that only their lower slopes are visible. The mists are apparently forever present in the upper regions, for one can seldom catch a view of Blue Mountain Peak, the monarch of the system. As the coast is more closely approached and the island encircled, the configuration resolves itself into well-differentiated forms.

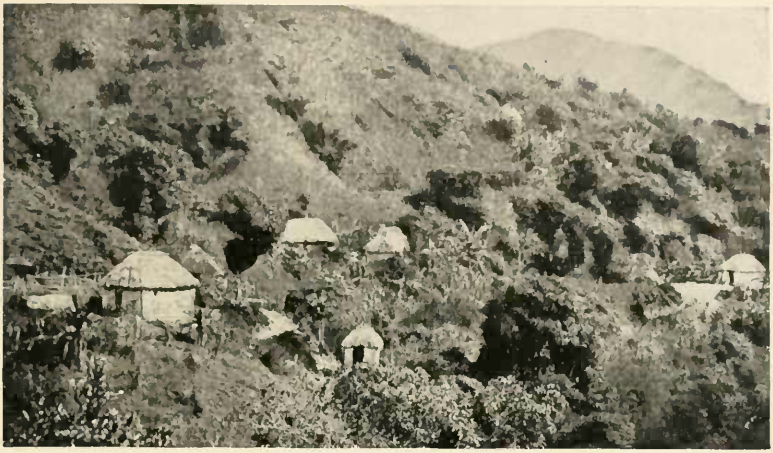
The uplands do not slope gradually to the sea, but are terminated near the coast by very abruptly truncated bluffs and steep slopes, usually, but not everywhere, separated from the sea by a narrow strip of plain, as if the original coast margins of the mountainous upland had once extended much farther seaward and had been horizontally planed away by the beating sea. This abrupt sea face of the mountainous upland is a marked topographic peculiarity, which we shall call the back-coast border.

The chief features of the topography are the superb summits of the Blue Mountain ridge of the east, surrounded by a lower but rugged plateau of white-limestone hills, which extends westward and largely occupies the western two thirds of the island. The secondary features of the topography are interior basins and valleys in the summit of the plateau, certain coastal benches and terraces carved out of the margin of the back-coast border, occasional patches of low coastal plain, and deep-cut drainage valleys.

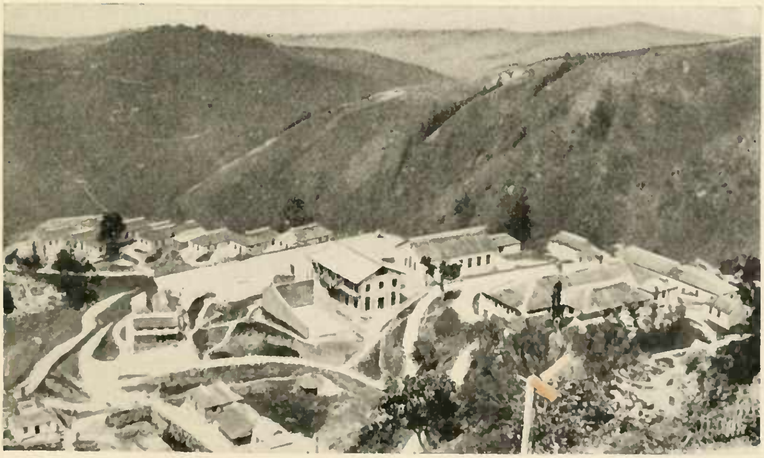
The Blue Mountain ridge, a sinuous divide with many bifurcating branches, extends one third the length of the island, from near the eastern point toward Port Maria, and has a trend of north of west, parallel to the truncated northeast coast. It presents a serrated crest-line with radiating laterals, whose summits culminate near the center of the ridge in the Blue Mountain Peak (7360 feet). West of this peak the heights gradually decrease until they become lower than those of the limestone plateau. The central ridge and numerous laterals, which project from it at right angles, present steep angular profiles, like that of an inverted letter V. Its configuration is singularly free from benches, mesa-tops, or cliffs.

Imagination can picture no more exquisite scenery than that of these mountains. It equals that of Tyrol, but is entirely different in detail, as can be seen in the ascent of Blue Mountain Peak. With increasing altitude panorama after panorama of tropical landscape unfolds in rapid succession. At Gordontown, nine miles north of Kingston, where the interior margin of the Liguanea plain abruptly meets the mountain front, the ascent begins through the red-colored cliffs of the Hope River cañon, which here, at an altitude of nine hundred feet, debouches into the gravel plain. A thousand feet above us, the white buildings of Newcastle Barracks look like doves upon a housetop; yet later we climb so far above them that they seem like toy houses below. At two thousand feet the plain of Liguanea, upon which Kingston is built, with its neighboring villages and shipping, grows smaller and smaller, and finally appears like a diminutive plaza below us. Sometimes our path clings to the mountain-side, with an apparently endless slope above and a bottomless chasm below. Again, it follows a knife-edge, from which we can see beyond, on both sides of the island, the waters of the Caribbean, so distant and so far below that no horizon can be distinguished where the gray of the sea meets that of the sky. Great ocean steamers plying their way look like minnows basking on the surface of a lake. Still higher we look down upon the forest-covered summits of the limestone plateau, which appears below as an unbroken meadow, its rugged hills and cañons seemingly obliterated.

Each step of the way is marked by wonders of the vegetal kingdom. At the foot is the semiarid south-coast chaparral, with exogenous banana-plants, cocoanut-trees, native cactus, and acacias. Ascending Hope River cañon, the delicate deciduous flora of the island is first met. Vast trees of the forest, draped with tillandsia, mantle the slopes, while the cliffs are burdened with begonia and ferns,—golden, silver, and delicate maiden-hair,—besides many little flowers which find foothold



MOUNTAIN SCENERY



NEWCASTLE BARRACKS

JAMAICA

in the rocks. From one to four thousand feet, plantations of coffee are numerous, because of the congenial temperature and moisture which this most fastidious shrub demands. At five thousand feet the government has used a suitable environment for a cinchona-farm. Above six thousand feet, in an atmosphere of perpetual humidity, tree-ferns, the most exquisite of tropical plants, appear and clothe the summit. In this climate alpine heights and slopes offer no obstacle to human occupation, and to an altitude of four thousand feet they are well populated. On the summit a hut has been provided for the tourist to camp in for the night.

There are many other conspicuous peaks of the Blue Mountain ridge, but few of them have received local names. Sugar-loaf Peak, which lies just east of Blue Mountain Peak, is a part of the latter. To the west are Sir John's Peak, John Crow Hill, Silver Hill, and St. Catherine's Peak (5036 feet). These high summits are situated near the central portion of the main ridge, which is crossed by five passes with altitudes varying between three and four thousand feet.

East of Kingston there are few practical openings through the Blue Mountain ridge which are passable on horseback. One of these is that of Cuna-Cuna, between Port Antonio and Bowden, which traverses some of the most rugged and beautiful scenery on the island. Its altitude is 2698 feet. A good highway crosses the island through a pass in the ridge cut by the waters of the Wag Water (Agua Alta), between Kingston and Port Maria.

The Blue Mountain ridge is not a rock-ribbed projection of granite, lava, or other enduring rock, like our New England hills, but is composed of friable or loosely consolidated shales, clays, and conglomerates, with here and there an exceptional local bed of limestone or an occasional dike or mass of soft and decomposed igneous rock. The result is a configuration of wonderful knife-crests, slopes, and points, rather than cliffs and table-lands.

When one considers the softness of the material, and how rapidly degradation is going on and has gone on, he can but conclude that the mountains were once of much greater altitude and extent. There is no reason why their summits in times past may not have extended as high as their kindred in the Sierra Maestra of Cuba, over eight thousand feet, or in Santo Domingo, over ten thousand feet.

The old Blue Mountain rocks reappear in many places in the great central valleys of St.-Thomas-in-the-Vale, Clarendon Parish, Great River, and elsewhere to the west, where the later crust of the white-limestone plateau has been worn away. They are also seen in the face of the back-coast bluffs along the western half of the north side of the island, below the limestone and above the narrow coastal benches. They are all parts of the same grand Antillean system which we have previously described.

The western two thirds of the island is occupied by the great white-limestone plateau, a wonderful and diversified region of hills, valleys, and exquisite landscapes. This feature, a later addition to the geologic architecture, is a dissected plain, which has been carved and cut into a thousand hills, pitted with wonderful sink-holes and valleys, and covered with exquisite vegetation. Its main area stands like a shoulder some two thousand feet high, extending westward from the still higher sierras, although a narrow belt or collar of it completely encircles the eastern end of the island.

As a whole, the profile of the plateau, could the irregularities of erosion be eliminated, would be a very gentle arch sloping north and south toward the adjacent seas. The curves of this arch, if continued, would not meet the sea at the present margin of the land, but would intercept it quite a distance beyond the shores, indicating that the former borders, now restricted by the agencies which have sculptured the steep margins of the plateau, were once much more extensive.

By tacit consent, the innumerable eminences of the plateau are called hills in Jamaica, to distinguish them from the central mountains. The higher summits of the plateau are found near the center of the island, one of which, Mount Diablo, is reported to be 3053 feet in altitude.

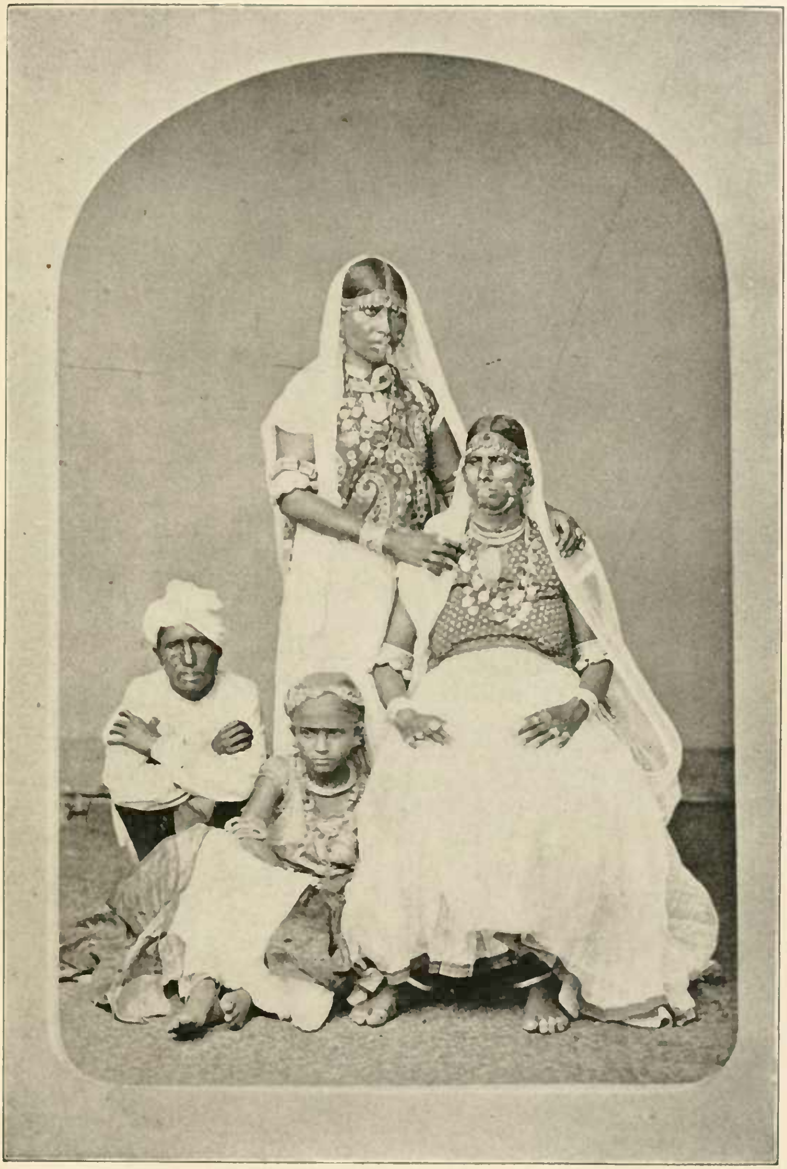
The materials of the plateau and its outliers are soluble white limestones like those of Cuba—sheets of old calcareous oceanic sediments, now hardened into subcrystalline texture, which weather into ragged honeycombed surfaces or dissolve away under the tropical rainfall into a unique configuration of roughly serrated hills, basins, and deep drainage-ways leading to the sea. Some of the basins are called cockpits—wonderful funnel-shaped sink-holes, often five hundred feet or more in depth, with steep acclivities ascending into pointed conical hills no less angular than the pits. Then there are great basin-shaped valleys, themselves an evolution of the cockpits, consisting of deep holes with wide, flat bottoms, in which the plantations are situated, inclosed by rugged limestone walls which rise from twelve to twenty-five hundred feet above them (the height varying in different localities) and separate the valleys by wild and uninhabited uplands. These valleys differ from one another chiefly in area. In many cases, although well watered, they have no outlet, while in others the barriers have been partially eroded, and they are drained by rivers leading to the sea.

The largest and most populous of these depressions are those of St.-Thomas-in-the-Vale, the great Vale of Clarendon surrounding the Clarendon Mountains, the Hector River basin in northern Manchester, and the Niagara River Valley along the boundary of St. Elizabeth and St. James. Montpelier Valley, along Great River in Hanover, and Morgan's Gut Valley in Westmoreland, are similar basins which have had drainage-gaps cut through their surrounding barriers. The latter now constitutes an interior embayment of the great plain of Savana-la-Mar.

The beautiful valley of St.-Thomas-in-the-Vale is almost circular in outline, and its floor has a diameter of ten miles. Its alluvial bottom is largely covered with charming fields and villages. The mountainous scenery encircling it is beyond description. From Ewarton can be seen a band of white limestone rising on the west side of the valley in a gentle arch, and extending for miles toward Moneague. This band has a steep face and is crested by rugged points forming the plateau summit. The culmination of this arch is Mount Diablo. Some ten copious streams drain this valley, and gather into a single arterial outlet, the Rio Cobre, by which they pass to the sea through the narrow gorge of the picturesque Bog Walk cañon. These streams have their sources in springs or caverns in lower portions of the hilly borders of the valleys.

The Clarendon Valley, in the geographic center of the island, is about fifty miles long and twenty-five miles wide. Its longer direction corresponds with that of the axis of the plateau. While this valley is of the same general type and origin as that of St.-Thomas-in-the-Vale, it differs from it in the fact that steep mountains rise from its center like the crown of a hat above the rim, the valley proper being an annular area lying between these mountains and the surrounding white-limestone escarpments. The drainage, like that of St.-Thomas-in-the-Vale, concentrates into an arterial trunk known as the Minho, through the cañon of which it escapes to the south coast.

The pouch-like basin of Hector River is almost connected with the northwest end of Clarendon basin, but has no direct outlet to the sea; they are separated by a barrier of low hills. The stream from which the basin takes its name rises from springs at its west end, and sinks into the limestones to the east. Cave Valley in St. Ann Parish is four miles in diameter, and is separated from the Clarendon Valley by a limestone ridge less than a mile in width.



EAST INDIAN COOLIES, JAMAICA

West of the Clarendon basin similar circular depressions occur at short intervals, such as those at Oxford, on the boundary of the parishes of Manchester and St. Elizabeth; the great head-water amphitheater of Black River, St. Elizabeth; the basin of Niagara River; the Mulgrave and Ipswich sinks; the Cambridge basin; the basin at the head of Roaring River, and the King's Valley basin near Jerusalem, the last two of which open into the Savana-la-Mar ("Plain by the Sea"). Of these the Niagara, Mulgrave, and Ipswich basins have no drainage outlets. The basins above described constitute a line of depressions along the central axis of the plateau. North of these, in the high plateau region of the parishes of Trelawney and St. Ann, are other basins. There are many other smaller and less important sinks in the western portion of the island, but those I have enumerated show the character of these widely distributed phenomena. From my descriptions it will be seen that many of these sinks have no outlet, although in their bottoms may be found limpid streams of water. The barriers of others, like those of Anchovy, Montpelier, Cambridge, and Chesterfield, lying along Great River, have been broken by capturing drainage, and they have become connected with one another or with coastal plains. Others, like the Clarendon and St. Thomas valleys, were once entirely inclosed, but in later times have found narrow outlets through single gorges. The coastward barriers of still others, like the basin of Westmoreland, have been largely destroyed.

The back-coast border, as distinguished from the narrow strips of coastal plain at its foot, presents a steeply sloping mountainous sea-front of chalky cliffs rising sharply above the sea, except where cut through by drainage; its sky-line has an average altitude of twelve hundred feet along the north coast. To the ordinary traveler this topography is principally interesting from its charming scenic features. To the student it reveals a series of most interesting ancient terrace levels, representing the successive steps in the elevation of the island above the sea. Some of these are beautifully shown on the east side of Montego Bay, where six distinct levels, or benches, separated by deep slopes, rise above one another in stair-like arrangement. At no other single locality are so many of these shown in such close juxtaposition, but one or more of them can be individually distinguished at many localities around the island, some of them being as high as two thousand feet. At a single glance these terraces in Jamaica do not present the perfection of the allied phenomena exhibited on the southeast coast of Cuba, but, nevertheless, they record a similar geologic history.

Naturally the integrity of these benches varies with their relative age and altitude. The higher ones are more fragmentary, because degradational processes have longer been working upon them. Fragments of the lower benches are better preserved, although much broken by erosion, while none is as perfect in contour as are the benches of the coastal plain. All have been cut across by rivers, etched and dissolved by rainfall, and undermined by encroachment of the waves; but they are, nevertheless, remarkable features.

A narrow strip of low coast plain occurs here and there interruptedly around the island, between the sea and the back-coast border. In some places this is an old beach only a few feet wide; in others it has greater width, and indents the back-coast border for miles. These patches of coastal strip are either elevated reef rock, like the seborucco of Cuba, marginal stretches of white sea-sand, or land-derived alluvium; and they present minor features of relief.

The coastal plains and slopes covered with alluvium are often extensive areas, especially on the south side of the island. The largest of these is the plain of Liguanea, upon which Kingston is situated. This plain is over twenty-five miles in length, and its width, which averages six miles, is greatest near its western end, in the district of Vere Parish in Clarendon, where it is about fifteen miles. In all, it includes about two hundred square miles.

In comparison with the other regions of the island the physical aspect of this plain is arid and sterile; the flora, including thorny acacias and cactus, tends toward the chaparral type characteristic of the Rio Grande plain of Mexico and Texas, and is strikingly unlike the delicate deciduous tropical flora of the remainder of the island. Back of Savana-la-Mar there is another extensive plain which continues inward nearly one half the distance across the island. Plains of this character are singularly absent from the north side, except at Montego Bay, adjacent to the mouth of Montego River, where they are less feebly developed than on the south coast.

Jamaica revels in an abundance of streams—not navigable rivers, but beautiful and rapidly flowing creeks, rushing through exquisite valleys over stony bottoms, and affording a wealth of waters for the needs of man. They are copious and voluminous, but not so deep that the dusky damsel need submerge her cargo or unduly elevate her skirts, as, without relaxing her majestic strides, she wades across, or as she laves to snowy whiteness the linen which she spreads upon the banks to dry.

Cutting-grass-spots and Deans rivers in Westmoreland, and Content River in Hanover, are other examples of these peculiar streams. It is supposed that their waters, after sinking into the ground, in some instances find a subterranean way coastward through the porous limestones.

Besides the rivers there are many beautiful pools and springs. The numerous mineral springs are locally noted for their curative powers. The hottest of these is at Bath, in the parish of St. Thomas, with a temperature of 126° F. The waters are sulphuric and contain a large proportion of hydrosulphate of lime. They are supposedly beneficial for gout, rheumatism, cutaneous affections, etc. The bath at Milk River, in the district of Vere, is another thermal spring of interest. Its waters have a temperature of 92° F., and are saline and purgative.

The drainage of the Blue Mountain districts is frequent and constant in occurrence and copious in run-off, while in the region of the limestone plateau it is superficially somewhat deficient, often disappearing into underground caverns or breaking out of them in a remarkable manner. As a whole, the island presents two major types of streams—one, simple rivers flowing to either coast; and the other, the rivers of the interior basins, which have no outlet to the sea.

The streams of the first class in the mountain region are marked by deep V-shaped cañons in their upper courses, and great deposits of ancient alluvium in their lower parts. The run-off of these is constant, but variable in quantity, owing to torrents. The streams found in the basins of the plateau region rise from springs, flow for short distances, then disappear into the ground without visible outlet to the sea. Of this type of rivers are the Minho; Rio Hoe, near Moneague; Great River, in the southeast corner of St. Ann; Pedro River, which sinks at the corner of St. Ann, Clarendon, and St. Catherine parishes; and Yankee and Cave rivers, which unite and disappear into a sink on the borders of St. Ann and Clarendon. The latter stream is ten miles long. Hector River, forming the boundary of Manchester and Trelawney, sinks at the northeast corner of St. Elizabeth; Hicks River, in Trelawney; Pine and Dry rivers, in the northern part of St. Elizabeth; Niagara, Chester, and Tangle rivers, in the southern part of St. James.

Jamaica also possesses many interesting caverns. The Cave of Mexico in St. Elizabeth, through which Black River flows, is probably the largest. Cave Hall Pen, near Dry Harbor, is of great length and has two branches; the various rooms are designated grottoes, halls, domes, and galleries, and are lined with beautiful stalactites and stalagmites. The Grand Cave at River Head, in St.-Thomas-in-the-Vale, is a very remarkable place. The Rio Cobre, after sinking into the limestone, again emerges from this cavern. Peru Cave in St. Elizabeth, the Mount Plenty Cave in St. Ann, the Mouth River Cave in Trelawney, the Portland Cave in Vere, the Epping Forest Cave in Manchester, are other notable caverns. In some of these interesting remains of the aborigines have been found.

We cannot here describe all the many objects of natural interest on the island. Its mountains, valleys, rivers, and coasts are everywhere beautiful to behold. It is a land of pleasant driving and riding, an ideal country for bicycling, and every portion is pleasing to the eye. The highest mountain-peaks are easily accessible on horseback. Many go to Blue Mountain Peak in order to obtain the superb view and to see the sunrise, which is said to be most wonderful. I almost doubted if it rose at all the day we made the ascent, so thick were the clouds and mist; but we were rewarded by other sights.

The prospect from Newcastle Barracks also excites the enthusiasm of all travelers. The wide expanse of mountainous region, rugged with sharp declivities and ravines, is covered with the most varied vegetation. Lying far below are Kingston, the sea, and the stretch of the coast.

Yet with all of its great differences of altitude, its rushing rivers, the wide expanse of surrounding sea, the scenery of Jamaica is not wild or crag-like, nor does it impress one with the immensity of some less mountainous regions. The massive grandeur and distant outlines of the mountains are largely lost, owing to closeness of view and the enveloping clouds. It is only the exquisite verdure and delicacy of the vegetation, and the dewy mists that hover over them, that hold the rapt attention. In the western parishes upon the limestone plateau, where sculptured hills and valleys everywhere abound, to the wealth of form are added marvelous colors. The pale greens of the bamboo patches rustling like feathery plumage, the dark evergreens of the pimento- and mango-trees, the old gray-greens of the orchid-decked ceibas, and the splashes here and there of growing cane-fields of an indescribable pale turquoise-blue green, adding lighter touches to the emerald background of the forest setting, overwhelm one with a beauty which changes with every passing cloud or angle of the sun into wonderful blues, purples, and olive tints.

This gentler aspect of the landscape is not diminished by the touch of man. The well-built roads, the neat stone walls, the comfortable homes of the planters, the sleek, browsing cattle, add to the beauties of the tropical landscape the charms of the English countryside.

Although the flora of Jamaica is of the same tropical character as that of Cuba and Porto Rico, already described, it has certain local variations. Everywhere there is a wealth of trees—mangos, ceibas, wild oranges, palms, plantains, and many others. One looks in vain, however, for the royal palm, the pride of Cuba; but in its place Jamaica possesses the pimento- (*Pimenta officinalis*) or allspice-tree, which grows nowhere else. The giant ceiba, the Jamaica cedar, the logwood, and fustic are other common trees. Grasses, orchids, and small flowers abound. Begonias and ferns border the roadsides, and tradescantia covers the stone walls. This flora shows considerable variation in different parts of the island. On the southern coast, at the foot of the mountains, it is of an arid type, comprising many species of thorny acacias, including the mesquit of our own southwestern chaparral, and a tall species of cactus of the *Cereus* tribe. Other than these, there is hardly a plant on the island which has a thorn. In the western portion much of the country has the aspect of an open forest carpeted with grass. In this portion the pimento abounds, the product of which—our commercial allspice—is a source of much revenue to the island. Besides the native flora, there are many introduced plants, which will be mentioned later among the agricultural products.

Jamaica cannot boast of a single native mammal, although the island is overrun by the exotic mongoos. This small weasel-like animal constantly crosses the highway before the traveler, infests the yards, and seems to pop out from every bush and stone. It was originally introduced for the purpose of destroying the Norway rat, another immigrant, which bade fair to eat up the cane-fields. The experiment was unsuccessful. The mongoos did not exhibit any particular predilection for a diet of rat, although the latter was so frightened that it was forced to change its habitat from the ground to the tree-tops, and, instead, feasted upon the native birds and reptiles, which had hitherto benefited the island by keeping down the injurious insect life, especially the field-tick, which, with the destruction of its natural enemies, in turn began to increase enormously. Chickens, puppies, cats, and other domestic animals were devoured by the mongoos, and the blacks believe the dusky piccaninny was included in the list. In later years, however, the ticks have assailed the mongoos, and the latter is succumbing to them. Besides a large iguana, there are many smaller species of lizards and a few harmless snakes.

The scorpion and centipede are slightly poisonous, but neither very dangerous nor abundant. Ants, mosquitos, and sand-flies are common in the lowlands, but the uplands are singularly free from insect pests. The butterflies, beetles, and fireflies are beautiful, the latter including fourteen kinds besides the beautiful Cuban elaterid, which carries upon each shoulder a miniature electric light. Gosse, the naturalist, who lived in Jamaica for eighteen months, enumerates twenty different song-birds, besides the parrots, pigeons, and a great variety of water-fowls. The crocodile, the manatee, and the West Indian seal inhabit the adjacent sea borders. A few species of fresh-water fish are found in the rivers. Edible marine fish are singularly few around the island. As in Cuba, land-snails are large and numerous. Domestic animals of all kinds, except the sheep and goat, abound. The island has some beautiful estates where fine breeds of cattle are raised, principally for the purpose of producing hardy oxen for the sugar-plantations.

Although the climate of Jamaica varies greatly with altitude and topographic situation, it is in general pleasant, healthful, and salubrious, the cold northern winds which affect Cuba being hardly felt, and the temperature, therefore, being much more uniform throughout the year. The low sea-coasts are the warmest portions, the larger part of the habitable island, at altitudes of from one to three thousand feet, being decidedly cooler. The southern sea-coast, at the foot of the Blue Mountain range, is warm and arid, much like the Santiago coast of Cuba. As one ascends the slopes the precipitation increases and the temperature falls rapidly, until in the higher portions the climate is wet and cool. The mean temperature at the coast is 78.2° F.; at 2000 feet, 73°; at 5000 feet, 62.6°; at 5500 feet, 60°; at 7400 feet, 55.7°.

At Kingston, one of the hottest and driest places on the island, the highest temperature during ten years was 89.7° F., and the minimum 67.8°; the maximum for the period averaging 87.8°, and the minimum 70.7°, showing a range of only 17°.

The climate of the plateau region is especially pleasant, the temperature in St. Elizabeth, for instance, having an annual variation of only 9°, fluctuating between a minimum of 67° and a maximum of 75°.

The rainfall at Kingston is only 44 inches, while on the north side of the island it is 88, even reaching 100 inches upon the higher mountain slopes. The average for the whole island is 66.

Residents of Jamaica are naturally subject to tropical diseases, such as malarial fevers, dysentery, and diarrhea; but owing to the perfect system of local sanitation and

CEIBA-TREE AND COUNTRY ESTATE, JAMAICA

quarantine, the island is remarkably healthful and ordinarily as free from epidemics as our own Southern seaboard, the death-rate being only 20.9 per 1000 for the island. These figures, when contrasted with the vital statistics of Cuba, Haiti, and Martinique, where no serious efforts are made to offset the natural drawbacks of tropical climate, show that the mortality of the Antilles can be greatly reduced.

The quarantine establishment is most thoroughly organized. Competent officials guard every port, and a fine lazaretto has been constructed at Green Bay, opposite Port Royal, with first-class accommodations for those who may be detained. The quarantine laws are enforced with the greatest severity, so much so that intercourse with Cuba, Haiti, and other places where yellow fever permanently exists through neglect, is almost prohibited, although this practically isolates Jamaica commercially from near-by lands with which much trade might be developed.

Not only is every precaution taken to guard against the introduction of disease, but the island is kept in a thoroughly sanitary condition. Cleanliness is stringently enforced and the water-supply carefully guarded from pollution by a central board of health, with district medical officers in every parish, assisted by the constabulary and backed by the support of public opinion.

Notwithstanding these stringent precautions, yellow fever is occasionally introduced into the island, as it is in our own Southern cities. In 1897 an epidemic of this disease was brought by Cuban refugees who smuggled themselves into the country. Ordinarily the island is free from this scourge, which is in no manner indigenous.

CHAPTER XXI

JAMAICA (*Continued*)

A model British colony. Respect for law and order. Early history and administration. Agriculture. Rise of the fruit industry. Commerce. Railways. Excellent highways.

THE universal aspect of order and the respect for law that everywhere prevail in Jamaica are no less conspicuous than the natural beauties of the island, and are noted by any one who has traveled in the more unruly places of the tropics. The dread of unconscious violation of some trivial law which haunts one in Cuba, the feeling of being watched as in Porto Rico, the suspicion of some other person's hand in your pocket as in Mexico, the fear of brushing against prevailing contagion at every step as in Martinique, Santo Domingo, and Haiti, are sensations which do not worry the traveler here. The stranger is welcomed with a sincere hospitality and courteous greeting; the island is clean, and the laws are for the protection of the visitor as well as of the resident—not the robbery of the individual or the enrichment of the official. Thieves are confined in prison; those infected with loathsome diseases are isolated together; rigid quarantine keeps contagion out, and health-officials attend to public sanitation. Neatly uniformed constabulary of respectful mien and open eyes see that the laws are obeyed, and the poorest negro as well as the richest planter feels that they are for his special benefit and protection, and respects them in a spirit which is not found even in our own country. In fact, in the government of Jamaica we have an example of that perfection of colonial administration in which England excels.

The name Jamaica is derived from a native word, "Xaymaca," signifying the "island of fountains." Among illiterate natives the name is still pronounced "Hāmīky." The island was originally settled by the Spaniards in 1509. In contrast with the Spanish mode of procedure in the other Antilles, the first governor reduced the natives without bloodshed; but his successors carried on a work of extermination. During the century and a half of Spanish occupation several small towns were settled, and the Castilian nomenclature, though now sadly corrupted, was given to many of the natural features. Among these were the names of Manteca, now corrupted into Montego; Mont Agua, now Moneague; Boca del Agua, now Bog Walk; and Agua Alta, now Wag Water.

In 1665 an English fleet sent by Cromwell to capture Santo Domingo, having been repulsed from that island, indemnified itself by seizing Jamaica. At that time the population was only three thousand, one half of whom were Spaniards. The latter migrated from the island to Cuba, but their race imprint was left upon the other half of the people who remained, as is still shown in certain words of the language and habits of the island. England immediately began colonization with settlers of all kinds drawn from the West Indies, Scotland, and Ireland, and since the conquest Jamaica has remained a loyal English colony, devoted to the government, customs, and traditions of the mother-country. Owing to beneficent privileges granted the colonists, the population rapidly increased. Although the English official and landlord always constituted the ruling class, there were among its accessions a large number of African slaves and Jewish traders. The mixture of these peculiar elements of the seventeenth-century population—Spanish, mulattos, negroes, apprenticed Scotch, Irish, and English peasantry, Minorcan Jews—has gone far toward producing the peculiarities and language of the lower classes of the present Jamaican people.

Shortly after the establishment of English control, Jamaica became a busy center of bucaneering and the slave-trade. The old town of Port Royal, through its superior advantages as a maritime and naval station, became a great stronghold. It was here that the famous corsair Morgan prepared his expeditions, and in 1762 Lord Abercrombie organized the land and naval forces that reduced Havana; and here the slave-traders brought their newly captured negroes from Africa, to be distributed throughout the West Indies and tropical mainland.

Jamaica, according to Bryan Edwards, attained the meridian of its prosperity in 1780, at which time it was occupied by large plantations worked by African slaves, and operated by resident English owners who lived in princely state. The island was then the most productive of England's West Indian colonies. The same author estimates that 2,130,000 blacks were imported by the Bristol and Liverpool slave-traders between the years 1680 and 1786, and that 610,000 of these were landed at Port Royal.

In 1807 the importation of slaves was abolished by Great Britain, and in 1833 the remaining 309,000 slaves were emancipated, the owners being liberally remunerated. Owing to the English system of slavery, as distinguished from that of the Spanish colonies, concerning which we have spoken in our descriptions of Cuba and Porto Rico, the freeing of the blacks resulted in the almost total ruin of the Jamaican plantations, and the island has never regained its agricultural and commercial prestige since that event. The free negro preferred to earn his living by independent efforts, and showed a dislike for plantation labor. The better class of landlords pocketed the profits of emancipation, sailed back to England, and left their estates to degenerate in the hands of agents and overseers.

The history of the island has been unmarked by any serious political disturbances, excepting an occasional uprising of the slaves and rebellion of the maroons.

During her possession of the island England has made various experiments in devising a suitable form of government for the colony. It was at first under a military jurisdiction. Then came a period of general assemblies under a governor appointed from England, which lasted two hundred years; then in 1866 a crown government, with a legislature consisting exclusively of official and nominated members. In 1884 the present mixed legislative system of nominated and elected members came into force.

The island is divided into three counties and twelve parishes. The counties are Surrey on the east, Middlesex in the center, and Cornwall on the west. The function of the county divisions is not clear, the parishes being the chief subdivisions, each of which sends a representative to the colonial assembly.

The executive consists of a colonial governor appointed by the crown, and having strong supervisory powers, assisted by a colonial secretary, an attorney-general, a director of public works, a collector-general, and the senior officer in command of the military forces. The legislative powers are vested in a council, or colonial legislature, consisting of nine elected members, two nominated members, and the administrative officers above mentioned. There is also a privy council. The administrative forces of the island are thoroughly organized under a most efficient system of civil service, admission to which is gained by fair competitive examination. The departments include land, auditor's, treasury, customs, excise, and internal and revenue departments. The postal and telegraph service is thoroughly equipped. The object of the government medical service is to diffuse medical assistance throughout the several parishes, by inducing practitioners to locate themselves in districts which without some contribution from the government would be altogether destitute of medical aid and advice. Under this department there are eighteen public hospitals throughout the island, with a total of 1117 beds.

The police system is most thorough, consisting of a constabulary of seven hundred and seventy men, with over one hundred stations scattered throughout the island, and several prisons and reformatories, in which prevails the mark system of the English convict prisons, after which the Elmira (New York) Reformatory is modeled. The prison system includes a penitentiary with male and female divisions, and industrial schools and reformatories for both sexes.

Not the least interesting part of the Jamaican administration is the thoroughness with which statistics are gathered. An excellent registration department records the births, deaths, baptisms, and marriages, while information can be readily obtained on any desired subject. There is also a board of supervision, having charge of outdoor relief of the poor. The government printing-office, the botanical gardens, and the government laboratory are also embraced in the administrative organizations.

A notable public feature is the Institute of Jamaica, located at Kingston. This is a public lyceum and museum maintained at colonial expense. The library is rich in Jamaican and early West Indian literature, while the museum presents a splendid illustration of the island fauna, flora, and archæological objects of interest. Public lectures are given, and the publications of a scientific and historic nature are appreciated throughout the world.

The courts are thoroughly organized, embracing a supreme court of judicature with nine justices, from which in certain cases appeal may be taken to the council. This court also has supervision over the findings of the lower court in British Honduras. There is an encumbered-estate court, an admiralty court, resident magistrate courts, and courts of petty service.

Good schools are everywhere provided, and attendance is compulsory. There were nine hundred and twenty-four government schools in 1896, having an enrolled attendance of one hundred thousand children. There are nine hundred and twelve public free schools throughout the island. The figures in the last report of the superintendent inspector of schools show an unprecedented advance in attendance, due to the abolition of school fees by the legislature in the spring of 1892. The effect of this has been shown in the rapid decrease of illiteracy. There is a government training-college for female teachers, under the charge of educated Englishwomen. Sixty male students are also being trained at a local educational institution in Kingston at government expense. There are also a number of free schools, denominational schools, high schools, and industrial schools. In addition to the local educational institutions, scholarships are provided whereby residents of the island can obtain higher education in England. The island is one of the centers for the local examinations held by the University of Cambridge.

While the majority of the Jamaicans belong to the Church of England, the latter was disestablished and disendowed as the official religion of the island in 1870. This church has about one hundred and fifty parishes throughout the island. The Scotch Kirk, the Catholics, the Baptists, the Presbyterians, the Congregational Union, the Wesleyans, the United Methodists, the Christians, Moravians, and Hebrews are all numerously represented. The Jamaicans, as a rule, are remarkably punctilious in their church attendance, and on Sundays the country roads are lined with the people going to and from the numerous neat chapels everywhere to be found.

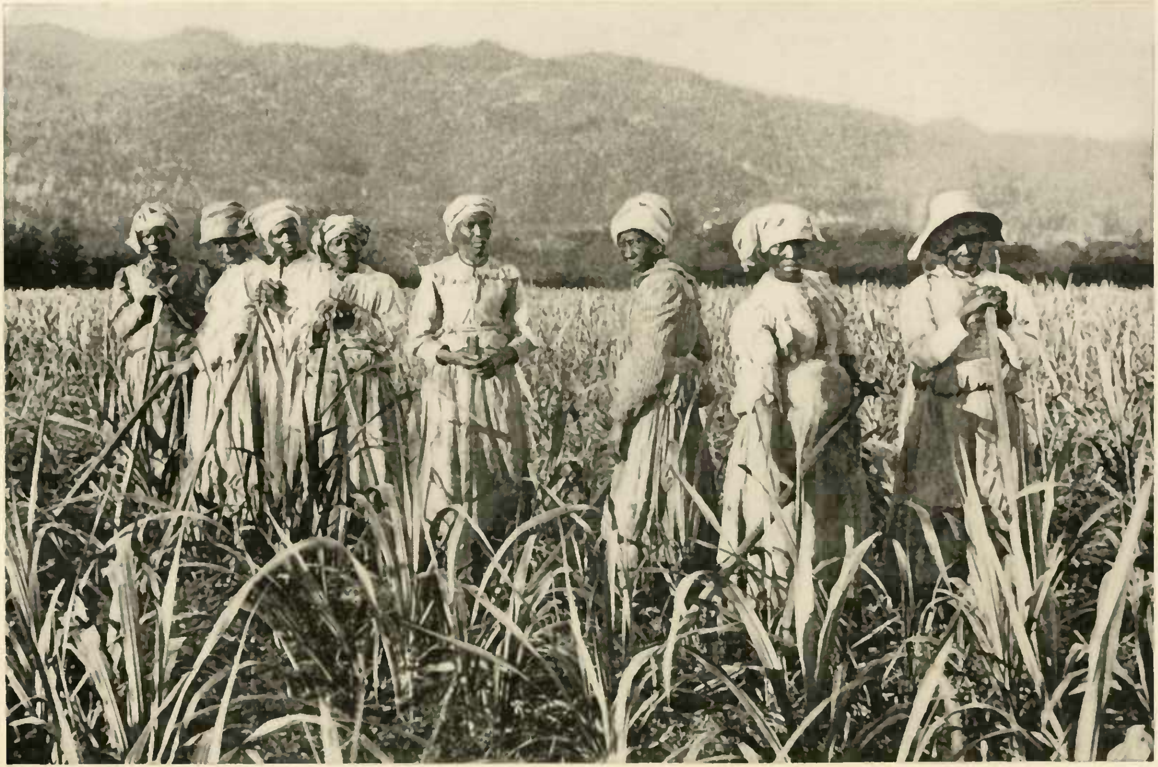
The general revenue for the year 1895–96 amounted to $3,069,000. Of this sum more than one half was raised by import duties, in accordance with the principle of indirect taxation which prevails in all the British colonies. The remainder was raised by excise duties, principally on rum manufacture. The total expenditure for the same year amounted to $2,987,666. The public debt is $7,581,000, most of which is for the recently constructed railway systems, irrigation canals, and new bridges.

In general the government of Jamaica is humane, civilized, and just. In fact, the perfection of its organization and working seems too good for an island whose population is not yet entirely out of the savage state. What might Cuba have been with such a government?

Agriculture is either flourishing or decadent in Jamaica, according to the point of view. The large English estate-owners, shorn of the old-time profits of sugar-culture, believe that the island is in its decadence, because of the extermination of this industry. Americans and the natives believe, however, that Jamaica has passed through the crucial tribulations resulting from its former dependence upon the sugar-producers, and is entering, for the first time, upon a state of true prosperity, owing to the increasing number of diversified small farms.

The island embraces about 2,700,000 acres, of which about 80,000 acres, or 2.97 per cent., are estimated to be occupied by swamps or lands otherwise useless for agriculture. About 12 per cent., or 330,000 acres, are covered by forests. There are now beneficially occupied in cultivation about 694,000 acres, or a little more than one fourth of the whole cultivable area. The following table shows the area occupied by each crop and the annual value of the export products.

CROP.	ACRES.	VALUES.
Ground provisions	95,808	
Pimento	63,193	
Sugar-cane	30,036	$2,055,510
Coffee	25,559	1,617,684
Bananas	19,227	1,594,048
Cocoanuts	10,940	116,024
Cocoa	1,632	99,881
Tobacco	261	
Ginger	84	
Guinea-grass	126,877	
Common pasture	342,020	



CULTIVATION OF SUGAR-CANE, JAMAICA

The circumstances of sugar-raising in Jamaica are of a special character, and cannot be exactly compared with those existing in the other British colonies, which are solely dependent upon this product, and are suffering financial ruin, owing to the competition of the beet-root. The cultivation of sugar-cane, instead of being the sole agricultural industry, as in many of the other West Indies, constitutes only nineteen per cent. thereof. The majority of the Jamaican sugar-estates are small, the average having only one hundred and seventy-eight acres, and they are for the most part widely dispersed, so that plants for grinding cannot be conveniently established. The cost of management is therefore increased. The product is largely manufactured into rum, the annual output of which is a little over two million gallons. The quality of the cane is fair. Borer and fungoid diseases have not seriously affected it, as in the Lesser Antilles. Before slavery was abolished, Jamaica was one of the largest sugar-producing islands. In 1805 it exported one hundred and fifty-one thousand hogsheads of sugar and five million gallons of rum; but the planters seemed utterly incapable of adapting themselves to the new conditions of labor after the freeing of the blacks, and many of the former cane-fields are now turned into ruinate. The decay of the sugar industry, however, has been accompanied by a progressive increase in the cultivation of more diversified products and the acquirement of small estates by the black inhabitants. A department of gardens and plantations, under capable and experienced men, has carried on experiments which, while supporting the old, have encouraged the establishment of many new and promising agricultural industries. Furthermore, the government has been fortunately administered during that period by progressive and able governors, who have constantly adopted a policy whereby it was possible to extend the railways and improve communication by parochial roads and the encouragement of rapid steamship lines to the United States, and now the people are finding a source of livelihood and profit in products which were disdained and considered trivial by the former planters. A few years ago a fine type of the old-time Cape Cod skippers, Captain Baker, saw the possibilities of the island in the fruit line. He established what is now the Boston Fruit Company, capitalized at several millions of dollars, which has stimulated and encouraged the planting of banana- and orange-trees all over the island. At every little port the stations of this company are located, and steamers run almost daily in the fruit season, conveying the product to the United States. This has brought to the island a welcome addition of money, which, distributed both to the small producer and the hordes of laborers required in handling the fruit, has proved beneficial to all classes.

Up to the time of the great frost in Florida, in the winter of 1895–96, the Jamaicans never dreamed of the possibility of remuneration from orange-culture. Scattered over the island were thousands of orange-trees, some planted for ornament or private use, others the result of accidental propagation. Owing to the destruction of the Florida fruit during the year mentioned, American merchants undertook to gather Jamaica oranges, and some two hundred and fifty thousand barrels were shipped, much to the profit and delight of the Jamaicans, who immediately availed themselves of Captain Baker's offer to have the old trees grafted, at his expense, with stocks of the superior Florida fruit. The wild, or Seville, orange grows everywhere throughout the island, but the marmalade on every table is made in Scotland from Sicilian oranges and possibly Jamaica sugar.

The grape-fruit and shaddock members of the orange tribe attain great perfection here. Lemons and limes are little cultivated. Grapes, pineapples, new potatoes, tomatoes, and other fresh vegetables for use in America are receiving some attention on the island, and a valuable trade in these commodities is being created. Attempts are also being made to establish a fruit-trade between Jamaica and England by means of ships fitted with refrigerator chambers, and capable of performing the voyage within fourteen or sixteen days. There is little doubt that before long Jamaica fruit will be regularly shipped to that country.

No Jamaican of the old school ever thought of planting tobacco. In 1886, at the end of the great revolution, a family of Cuban exiles came to the island and began the cultivation of tobacco and the manufacture of cigars. Now small colonies of Cubans can be found at many places throughout the island, growing this crop, and Jamaican cigars, manufactured in Kingston, are smoked from Colon to Barbados, and have practically supplanted the Havana article in the West Indian markets. Tobacco for local consumption is twisted into long ropes and sold by the yard.

Jamaica coffee is of three well-marked qualities. The sort that obtains the highest price is grown on the southern slopes of the Blue Mountains, at elevations of from three to five thousand feet. The quantity produced is small, probably not one third of the whole, but the prices obtained are high, ranging from twenty-five to forty dollars per hundredweight. This is the famous Blue Mountain coffee, every grain of which is carefully gathered and shipped to England, where it is said to possess peculiar qualities for blending. None of it is consumed upon the island. While stopping at one of the largest estates overnight, we observed that no coffee was served either for supper or for breakfast, the overseer informing us that, although he had been there for many years, he had never been permitted to use a single berry for his own consumption. The coffee-estates are most economically managed. In looking over the books, which are kept with great accuracy, I found that every expenditure, however trivial, was most carefully planned for, even down to including twopence a week to feed the watch-dog. The Blue Mountain estates are situated on such steep slopes that one naturally wonders how the field-hands maintain a vertical position while cultivating them. From the sea these plantations appear far above as small patches of brown in the general mantle of green vegetation.

The next grade of coffee is grown in the hills of the plateau region of Manchester and St. Ann's, at elevations of from fifteen to twenty-five hundred feet. This obtains only half the price of the Blue Mountain variety.

Large quantities of coffee are also grown in small patches by the negroes. This is badly cured and sold to local merchants, or retailed by the gill and pint in the little markets. This coffee of the common people brings only one fourth the price of the best quality.

It has been shown that if the settlers were provided with a central factory, worked by people who thoroughly understood the curing of coffee, the value would be increased at least twenty per cent. It is estimated that bad methods of culture and defective curing result in an annual loss to the island of nearly a million dollars. The berry was formerly cultivated much more extensively than now, and there were three times as much of it shipped in 1814 as in 1895 and 1896. There are many abandoned estates in the Blue Mountains, which could be made productive by judicious cultivation and manuring. Some of these, latterly bought by settlers, have been brought into an excellent state of cultivation. There is evidently a promising field for development in this direction, both in the Blue Mountains and in the coffee districts of the west.

Liberian coffee is being largely introduced into Jamaica, owing to the fact that it will grow in sheltered localities with a moist climate, at a lower altitude than the other varieties, and even on some of the old abandoned sugar-estates. It is more hardy and consequently less subject to disease than Arabian coffee, and can be cultivated in connection with the shade of the bananas, now so extensively planted.

Cocoa cultivation was introduced into Jamaica by the Spaniards, but subsequently dropped by the English. Under the fostering administration of the botanical department, it has been latterly encouraged again, and thousands of acres formerly devoted to sugar may be utilized by this remunerative plant. Common allspice, which occurs in commerce as small dry berries resembling black pepper, grows upon the pimento-tree, which is indigenous to the island. The cultivation of this is of the simplest character. The trees are established from seeds distributed by birds, and require only to be thinned and kept free from undergrowth. The crop is irregular in quantity, and the price of late years has been exceptionally low, although Jamaica is the only country that produces this article. In the shade of the pimento-trees cattle are raised on a rich grass called the pimento-grass, that thrives on dry limestone soil. Allspice may therefore be regarded as only a by-product on lands usually devoted to stock-raising.

Ginger is another industry that is especially associated with Jamaica. This can be grown in almost every part of the tropics, but that of the rich soils in the mountains of Jamaica usually brings the highest prices. The cultivation is an exhaustive one, and land that has borne a few ginger-crops has hitherto been abandoned as useless. Efforts are now being made to restore fertility to these lands by the use of suitable manures.

It is needless to review all the other small agricultural industries now existing or capable of being called into existence in Jamaica. The exports of annatto, which every American sees at least three times a day in the golden yellow of the butter upon his table, lime-juice, dye-woods, bitter woods, lancewood bars, satinwood, ebony, coco-wood, lignum-vitæ, walking-sticks (from thinnings of the pimento-trees), divi-divi, tamarinds, sarsaparilla, and nutmegs are all more or less prominent. There are also medicinal plants; essential oils; other spices besides the allspice, such as cardamoms, nutmeg, black pepper, cinnamon, and vanilla, besides Sisal hemp, cassava, Chile peppers, castor-oil, and cinchona barks. All of these already exist in the island; and are only waiting for favorable circumstances to be developed into important industries. They could be greatly increased at any time if special attention were devoted to them.

Not the least important feature of the Jamaican agriculture is the government instruction and experimentation. Grants of money are given to elementary schools for the teaching of agriculture as a special subject. In addition, all country schools are expected to teach the elementary principles as a part of the general course. Special courses in agriculture are given to the students of the normal schools, and practical demonstrations and lectures are regularly delivered in certain districts by the officers of the botanical department, which also issues a monthly bulletin dealing with agricultural and horticultural interests. Further, an industrial school is attached to the Hope Gardens, where the boys receive practical instruction from the superintendent. Apprentices brought here from the west coast of Africa for training are now engaged in agricultural work in their own country.

The Royal Jamaica Society of Agriculture was established in 1885, and, according to the "Jamaican Handbook," it is entitled to be classed among the most useful and valuable institutions of the island. The Jamaica Agricultural Society, a more recent creation, publishes an excellent monthly journal. There are besides sugar-plantation associations, pen-keepers' associations, and local agricultural societies.

All in all, agriculture in Jamaica is in a far more healthy condition than in the other islands. The blacks no longer depend upon imported rations of rice and codfish, with which the former masters fed them, but nearly all have little homes surrounded by fields of ground provisions,—yams, sweet potatoes, bananas, and corn,—which, together with a few pigs and chickens, furnish an ample livelihood. The agricultural prosperity of Jamaica is handicapped, however, by the fact that the export products are so largely taxed by the protective duties of the United States, which is the nearest and most natural market.

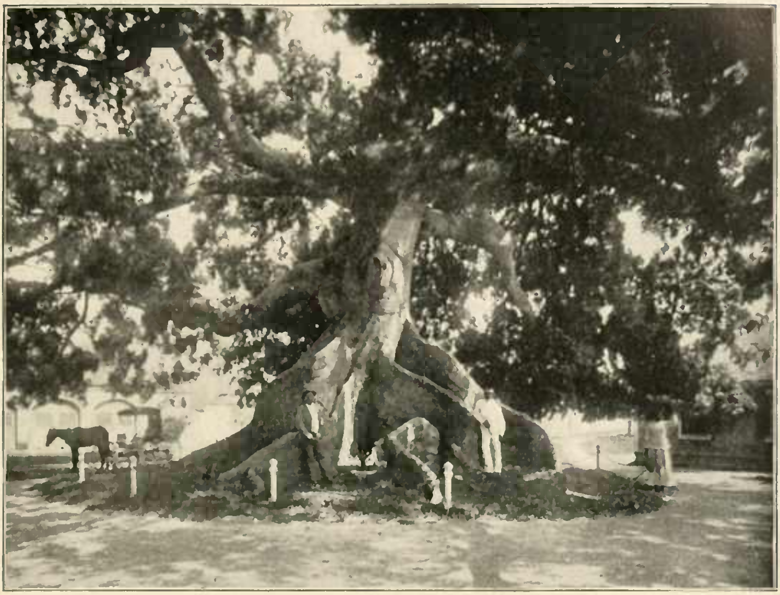
The imports in 1895-96 were valued at $13,722,500, and the exports at $8,900,000. Great Britain supplies about 48.1 per cent. of the imports; Canada and other British possessions, 7.5 per cent.; the United States, 41.8 per cent.; and other countries, 2.6 per cent. Of the exports the United Kingdom consumes 27.6 per cent., and the United States 57 per cent. It will thus be noticed that the trade with the United States is of greater bulk and importance than that with Great Britain; indeed, more, perhaps, than is represented by the figures, for while the United States offers a better market for sugar and takes nearly the whole of the fruit, the colony is dependent upon this country for a large portion of its staple food-supplies.

The principal items of island export are sugar, $928,625; rum, $872,850; and coffee, $1,720,000; fruit exported to the United States, $2,421,116; minor items, including ginger, $2,500,000. For a country with such a large population and so full of agricultural resources as Jamaica, the small export value seems remarkable. Among the smaller exports were included tobacco, cigars, and horses, but no cattle. Sugar is a decreasing industry on the island, and coffee-culture does not appear to be extending. Fruit exportation has made great strides in recent years and is likely to grow in value.

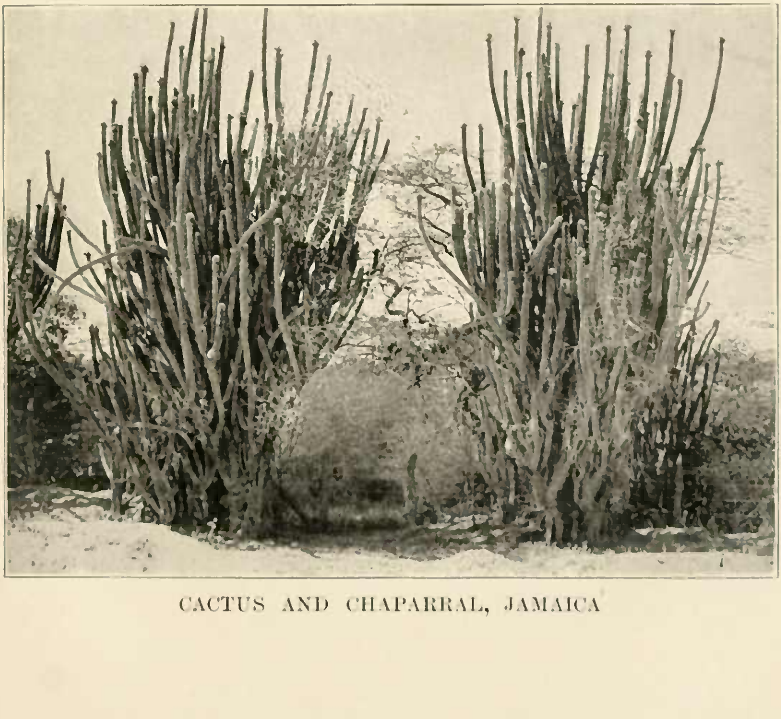
Notwithstanding its natural beauty, fertility, and superior governmental organization, Jamaica is suffering from financial depression. There are several causes for this condition. The first of these is the fact that notwithstanding the loyalty of the people to the institutions and government, which tie them to England, their trade and commercial interests are with the United States, which country, through its tariff laws, renders it impossible for the producers to obtain the prices which would prevail if the island had free trade with this country. Absentee landlordism is also a great curse to the island. Most of the land titles are held in England, and largely by men and families of fortune, who care little for these estates, since they have ceased to return the immense revenues formerly attainable under the plantation system. The conservatism of the English people also stands seriously in the way of Jamaican advancement. The Englishman adheres to the dress and customs of his Northern isle in this tropical clime, and cares little for the ever-increasing inventions which make competitive industry possible. The last time I was in Kingston an American ice-wagon arrived on a steamer. The daily papers, in noting this innovation,—the inhabitants having been before dependent upon depots for this commodity,—remarked in a spirit of despair that "thus our island is rapidly becoming Yankeeized."

Notwithstanding the intense loyalty to the crown of every Jamaican, from the humblest negro to the highest official, there is a general feeling on the part of the people in favor of annexation to our country. Froude found in the island the same longing for admission to the American Union which he had left behind him in the Lesser Antilles. "If the West Indies were ever to become prosperous, it could only be when they were annexed to the United States." In meeting with this subdued but ineffaceable sentiment throughout the loyal British islands, it occurred to me that these people were indulging in a vain hope, at least for the present; for I have never heard the least expression on the part of Americans of a desire to take from England the responsibility of controlling her West Indian islands, although it would be but wisdom to break down the commercial barriers which now weigh so heavily upon the inhabitants.

Jamaica has one hundred and eighty-five miles of excellent railways, extending from Kingston northwest to Mon-



A CEIBA OR SILK-COTTON TREE



CACTUS AND CHAPARRAL, JAMAICA

tego Bay and northeast to Port Antonio, across the island. These are well managed and comfortably equipped. Some of the scenery along the roads is magnificent. Railway construction is difficult and expensive. Seventy thousand acres of the crown lands were conveyed to the West India Improvement Company for its part in constructing the railways. There are also six hundred and eighty-five miles of telegraph line, operated by the postal system, with convenient offices everywhere throughout the island.

The glory of Jamaica, however, is its public highways. There are thirty-six hundred miles of fine roads,—roads such as no country district in the United States possesses,—which are built to grade, splendidly macadamized, well drained and cared for. These make communication easy, and every portion of the island accessible. Not only are the roads of the highest type, but good bridges everywhere abound. Some of these are so excellent that when the railways were constructed they were occupied by them without further strengthening. Strange to say, these roads are more used by pedestrians than by vehicles. The negro inhabitants think nothing of walking from twenty to forty miles a day, and, when footing is so good, many of them prefer it to the more expensive railway system. The island is indebted for this superior system of railways and public roads to Sir Henry Blake, for many years governor, who has recently been promoted to Hong-Kong. He devoted every energy to perfecting the means of transportation, and was justly proud of his department of public works.

The island has a good system of coastal and foreign communication. A comfortable steamer leaves Kingston every week and circumnavigates the island, touching at every little port, not only affording the benefits of transportation to the inhabitants, but presenting to the tourist the opportunity for a most charming journey. Excellent lines of steamers ply between the island and the United States, Panama, Costa Rica, Mexico, Colombia, the Lesser

Antilles, and England. The principal line is the English Royal Mail Company, which maintains a comfortable service between England and the Caribbean ports, excepting those belonging to Spain, which are avoided on account of sanitation. These steamers are patronized largely by English tourists who come out to see the colonies. The arrival of the semimonthly packet from England, bringing mail, parcels, English mutton, butter, and a thousand and one necessaries, which every Englishman in Jamaica awaits from home, is the most important event upon the island. The principal service to the United States is maintained by the Atlas Line from New York and the Boston Fruit Company's steamers from Boston, New York, Philadelphia, and Baltimore.

CHAPTER XXII

JAMAICA (*Continued*)

Cities and villages. Kingston. Spanish Town. Port Antonio. Montego Bay. Rural life. The people. Excess of the black population. Color-line and distinctions. Dress and habits of the blacks. Folk-lore of the negroes. A peculiar alphabet. Dependencies of Jamaica.

THE better classes of Jamaicans do not dwell in cities, which are few in number and the least attractive features of the island. There are numerous small towns and villages, local centers of trade.

Kingston, the colonial and commercial capital and only city of importance, is a most unattractive place, situated on the south side, a little east of the middle of the island, on a low, arid plain surrounded by mountains. It faces an extensive harbor inclosed by a narrow spit of sand, some four miles in length, called the Palisades, which projects from the land like a crooked finger. Travelers landing at Kingston are often so impressed by its unpleasant aspects that they leave the island with no knowledge of the beautiful interior, and afterward decry a land of which they have really seen nothing.

The city has a population of 46,542. It is a hot and unpleasant town, in which the traveler does not care to linger longer than necessary for the transaction of business. It has good and well-lighted streets and an excellent water-supply and system of sewerage. The principal merchants, officials, and well-to-do people in general, reside in handsome English lodges and villas on the higher ground in the suburbs. It has a good street-railway system and many large mercantile houses and shops. The sidewalks are miserable, and seem to be constructed with an especial object to prevent walking. There are generally brick pathways in front of the houses, but these are broken from one another by steps, or terminate abruptly without steps, so that they cannot well be used; in fact, the well-dressed white man who ventures to walk upon the streets of Jamaica is looked down upon as an inferior being by the colored population. Numerous victorias and importunate cabmen are everywhere to be found, although one sometimes finds it inconvenient to pay a pound sterling for an afternoon's shopping in a limited district which elsewhere could be easily traversed afoot.

The architecture of Kingston is peculiar. The houses are of yellowish brick, the prevalent color of the dusty roads, with high steps leading to a jalosied[1] second story. As Trollope has remarked, one is struck by the ugliness of the buildings, especially those which partake in any degree of a public character. It is singular that any man who could put bricks, stone, and timber together should construct the peculiar forms which are to be seen here.

The public institutions are many and excellently conducted, including schools, churches, museum, library, almshouse, asylum, penitentiary, colonial offices, etc. There is also a handsome market named after Queen Victoria. In the central part of the city is a park with several statues of local celebrities, including one to Dr. Bowerbank, a distinguished physician and sanitary reformer. There is no theater in Kingston worthy of the name.

The suburbs lying to the north of the city are delightful. As one drives in that direction up the sloping plain, which

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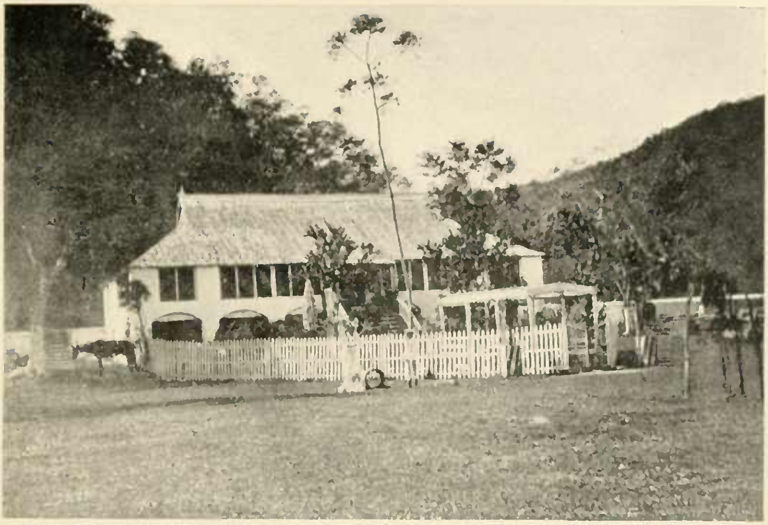
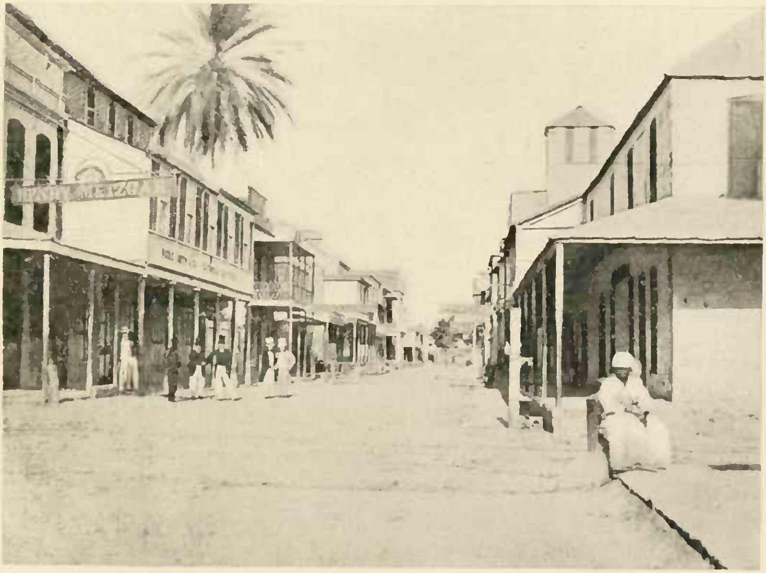
[1] Jalosies are Venetian blinds with large slats, used in tropical countries to screen interiors, without excluding the air.



COUNTRY HOUSE, RETREAT PEN, CLARENDON



KINGSTON STREET SCENE

JAMAICA

rises within a few miles to a thousand feet above the sea, he passes many beautiful English homes, each surrounded with its garden, in which flaming poinsettias, oleanders, and hibiscus-trees are the most conspicuous objects. A large area, known as the Up-town Camp, is the military garrison, with its parade-grounds, race-track, golf-links, and handsome quarters for the officers and soldiers. The troops are principally of the West Indian regiment, composed of tall blacks arrayed in handsome Zouave uniforms, consisting of red turbans, white jackets, blue trousers, and white leggings. Their picturesque figures, seen strolling along the streets, are very pleasing, and the regimental band furnishes good music. Four miles north of the city are the extensive grounds of the governor's residence, or King's House. This consists of elaborate buildings, constructed for comfort in the tropical clime, rather than with a view to architectural ornateness, and surrounded by lovely gardens. Here the governor and his wife extend a courteous hospitality to the residents of the island and the passing stranger. Still beyond are handsome public gardens and the large Constant Spring Hotel, at the foot of the mountain, from which the city is easily reached.

At the end of the spit inclosing the harbor, four miles southwest of the city, is the naval station of Port Royal, the headquarters of her Majesty's naval forces in the West Indies, and perhaps, with the exception of St. Lucia, the most important British stronghold in the Caribbean Sea. Old Port Royal, once the most flourishing English city of the New World, stood at the extremity of the Palisades, near the present naval station. In 1693 it was destroyed by a terrible earthquake, the city sliding bodily into the ocean. The disaster was one of the most appalling of all recorded catastrophes of nature. In entering Kingston harbor the traveler is told that beneath the waters the spires and roofs of the ancient houses can still be seen. Kingston came into prominence as a commercial center after this catastrophe.

Fifteen miles west of Kingston is the interesting old Spanish Town (population five thousand), which until late years was the political capital of the island. Its original name was Santiago de la Vega, and it was settled by Diego Columbus in 1525. The administrative buildings of the colony, rather imposing structures, including an ornate arcade with a statue of Admiral Rodney, are situated here, but are now unused. The town has an air of peace and quiet. Although the seat of a large population, there is no evidence of business activity, and the most interesting feature of the city is the old church and churchyard, where the inscriptions of the tombs recall lives and events in the past history of Jamaica. Among these is one which cannot but touch the hearts of Americans. It is a marble slab at the right of the south door, near the middle of the churchyard, and bears the following inscription:

IN
MEMORY OF
GEORGE WASHINGTON REED,
Master Commandant in the Navy of the
United States.
Born at *Philadelphia*, May 26th, 1780.
Captured in the U. S. Brig of War *Vixen*,
Under his command,
By H. B. M. Frigate *Southampton;*
He died a Prisoner of War at this place,
January 4th, 1813.
Unwilling to forsake his companions in Captivity,
He declined a proffered parole, and sunk under a
tropical Fever.
THIS STONE
Is inscribed by the hand of affection
as a memorial of his virtues,
and records the gratitude of his friends
For the kind offices which
in the season of sickness and hour of
Death He received at the hands of
A generous Foe.

An excellent hotel, one of the best on the island, is found in Spanish Town, where one may enjoy rest and entertainment in the quiet English way.

Port Antonio, on the northeast side, is the second commercial city in Jamaica. This is a queer old place, which had no importance until within the past two decades, when it was made the center of the fruit-shipping industry. It has two safe harbors, the western one capable of allowing large vessels to lie alongside the wharves. It is now visited regularly two or three times a week by fruit-steamers from Boston, Baltimore, Philadelphia, and New York. Most of the bananas consumed in our Northern markets are shipped from here. A line of railway connects Port Antonio with Kingston. Many beautiful drives diverge from the city, one leading southward across the Cuna-Cuna Pass to Bath, to the opposite side of the island.

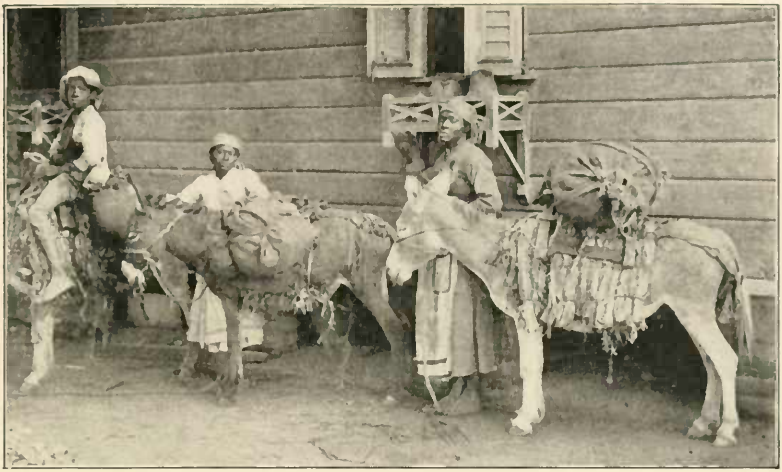
On the northwest coast the principal town is Montego Bay, situated on a beautiful and picturesque inlet, but, like most of the Jamaican towns, a place of little interest or importance, although the scene of many business transactions. It is connected by rail with Kingston, one hundred and twenty-five miles distant.

There are many other small and picturesque towns along the north coast, such as Lucea, Falmouth, St. Ann's Bay, Port Maria, and Buff Bay; and on the south coast are Port Morant, Morant Bay, Black River, and Savana-la-Mar.

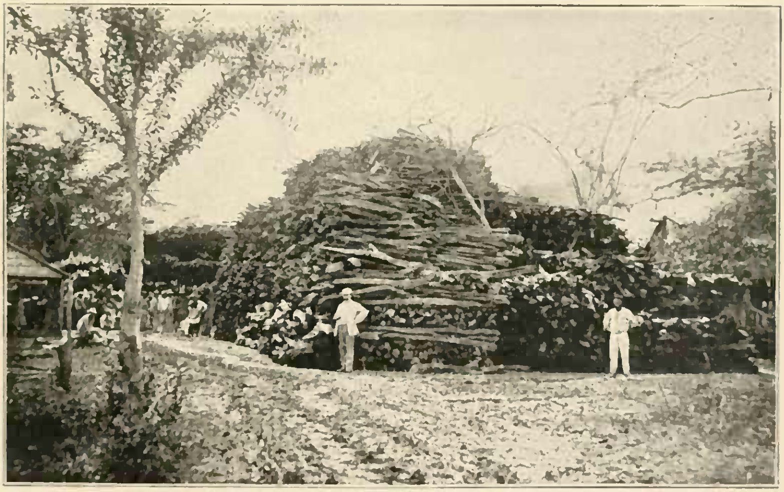
Most of the other villages of Jamaica are merely market-places where the gregarious blacks congregate on certain days to sell their yams and fruits and make their humble purchases from the few shops, usually kept by some coal-black Levi or leather-colored Isaacson. Hebrew names appear upon all the signs of the roadside shops in Jamaica, and one cannot avoid a shock after inquiring for the proprietor, whom one naturally expects to be of the type with which we are familiar in Chatham Street, to find him a son of Timbuctoo.

The best view of Jamaican life is obtained by driving through the country. Comfortable two-horse barouches can be hired for a pound a day in Kingston, and a courteous negro serves as guide and driver. Travel on the beautiful highways is a pleasure. The roads have a perfect surface; the gutters are well trimmed; neatly painted posts mark each quarter-mile; the grades, carefully surveyed, are such that the lofty heights are climbed without serious effort on the part of the horses; and every mile traversed presents some beautiful and pleasing picture to the eye. Sometimes these roads follow the side of picturesque streams like the Bog Walk and Wag Water; again, they rise over the high central divides, presenting remarkable panoramas of landscape, sometimes wild and rugged, again broken by beautiful pastoral and agricultural scenes. If one prefers, he can drive entirely around the island along the sea-shore, everywhere in sight of the sea, here presenting a great variety of color,—pearl-green above the growing reef, or deepest blue where some oceanic abyss closely borders the shore,—and always accompanied by a beautiful breaking surf dashing against the rock or dying upon beaches of snow-white sand. Miles of cocoa-palms shade the road, while on the land side one meets constant surprises as he passes around some headland. Here a great sugar-plantation borders the road, with its quaint old buildings and immense overshot water-wheels; around the next headland is a picturesque village with its parish church and market-place; or the road for miles follows overhanging bluffs veiled with exquisite vegetation. Not the least charming features of such a drive are the people whom one passes. Everywhere the erect figures of the negro women can be seen walking ahead so rapidly that our trotting horses hardly overtake them, each carrying upon her head some burden—a basket, tray, bundle, or vessel, a prayer-book, a handkerchief, or, if naught else, a round stone to hold down her hat.

The Jamaican woman thinks nothing of walking twenty



NEGRESSES TRANSPORTING CHARCOAL



LOGWOOD COLLECTED FOR SHIPMENT

JAMAICA

miles to market and back to sell a bunch of plantains or a few pounds of yams valued at less than a shilling. When they meet they never fail to exchange courteous greetings. Occasionally one meets the planters and pen-keepers of the better classes, or some country curate arrayed in the solemn black of his English prototype, as unsuitable for the tropics as can be imagined, yet conventionally adhered to.

"Lodging-houses," as the small inns are called, are found at convenient distances, and sometimes excellent English hotels, the best of which are in the country, remote from any village, where one is so well treated that he feels inclined to linger for many days. The best of these rural places in Jamaica is the house at Montpelier. This is erected upon a hill in the center of the Shettlewood estate, of ten thousand acres. From its generous verandas, extending completely around the house, the most beautiful landscapes of forest-covered hill and vale, crossed here and there by white highways, and broken by large and shady pastures upon which graze beautiful herds of blooded Hindu cattle, can be seen in all directions.

Another restful spot is the Moneague hotel, reached by a few hours' drive from Spanish Town. Here the governor and his family and the better class of tourists seek pleasant quiet.

Near the eastern end are the warm springs of Bath, near which there is another good hotel. Mandeville, in the west, has also a high reputation for the excellence of its entertainment and beauty of its surroundings, and no Englishman visits the island without stopping there. Kingsley, Froude, and Trollope have exploited its delights and restfulness. The charm of these places is indescribable. Unlike our bustling American tourist hotels, they make no attempt at elegance of furnishings, and each guest is permitted to enjoy himself as he pleases.

Jamaica is thickly settled, yet it could support many more people. According to the census of 1891, the population was 639,491, but by the law of natural increase it probably now amounts to 717,016 people, or 173 per square mile. In area and density of population the island closely resembles Connecticut. According to the census of 1891, the blacks numbered 488,624, the colored 121,955. Together these classes number 610,579, or five sixths of the total population. The whites are next in proportion, numbering 14,692, while there are 10,116 East Indian coolies. Besides these there were 481 Chinamen, and 3623 people whose race was not stated. There were nearly 28,000 more females than males, and 292,288 people, or one half the population, were illiterate—not such a bad showing for a black man's country when we think that two thirds of the white population of Porto Rico are equally ignorant. The population of Jamaica is increasing very rapidly by births. From 1861 to 1871 the increase was 64,890; from 1871 to 1881, 74,680. The birth-rate in 1892–93 was 37.3 per cent.; the death-rate 20.9 per cent.

The black population outnumbers the white in the proportion of nearly forty to one, but the government control is in the hands of the whites. No more refined people can anywhere be found than the colonial army and naval officials who compose the higher class of Kingston society, while throughout the island there are many estimable planters, pen-keepers, and clergymen, who in this distant colony bravely keep up the customs, traditions, and habits of the mother-country. These form but a fractional portion of the Jamaican population. The mass of the people are black or colored, and there are few old families on the island which do not show traces of African blood. During the days when the large plantations were prosperous, miscegenation prevailed to an alarming degree, and although not common now, its effects are seen on every side. Prior to this, however, the Jews, who constituted the mercantile class of the island, had mingled freely with the black race, and before them the Spanish blood had made a contribution of mestizos. As a result of this peculiar combination, there are many grades and qualities of colored people on the island, the best of which is that of the English mixture. So long ago was the African strain ingrafted that in many instances its possessors are often indistinguishable from the white; but there is always some meddlesome fellow who will call attention to it even when it is not evident to the eye. Trollope has well described this habit of the Jamaicans of pointing out the blood-taint.

The other mixtures of Jew and negro, and Spanish and negro, and these two classes mixed with each other, do not result in as handsome a race as either the Cuban or French island mulattos. The product is a scrawny race, of unpleasant features. Nearly all the tradespeople of Jamaica are of this class, possessing the shrewdness of the Jew, the groveling traits of the slave, and the servility of the London shopkeeper; they grate upon the American nerves most unpleasantly. Of the better class of colored people many are highly educated and intelligent, including in their ranks professional men and merchants who would do credit to any country.

But the unadulterated black—the coal-black, the "nigger" *par excellence* of Trollope, Dickens, and Thackeray, an amusing and interesting type—is in a vast majority here. The Jamaican negroes are *sui generis;* nothing like them, even of their own race, can elsewhere be found—not even elsewhere in the West Indies. They are omnipresent. The towns, the country highways, and the woods ring with their laughter and merry songs; they fill the churches and throng the highways, especially on market-days, when the country roads are black with them; and they are witty and full of queer stories and folk-lore, some of which we give below. Although the Englishman will tell you that they are poor laborers, they do the menial work of the island, and altogether are cheerful and respectful, having at least a great regard for good manners and appearance. Their wants are few, and most of them are content with a small hut surrounded by a provision-ground, where they can grow yams, cocoanuts, bananas, and sugar-cane, to supply their meager diet, a kind, by the way, entirely too light to support hard labor. An American contractor who was recently engaged in building the Port Antonio railway informed me that the Jamaican was very unsatisfactory as a laborer, even at the small cost of a shilling per day. He had imported from Alabama a few Southern negroes, each of whom seemed capable of doing ten times as much labor as the Jamaican. He wondered at this difference in the endurance of the two kinds of people of the same race, until he observed that a Jamaican who secured American food while working about the commissary tent increased in strength each day until his possibilities equaled those of the American blacks. It is remarkable how little food of a substantial character they consume, and how irregular they are in their hours of eating. Nevertheless, Jamaican negroes are sought far and wide throughout the tropics as laborers, and thousands of them have gone to work upon the Panama Canal, the railways of Costa Rica and Guatemala, and the banana-plantations of Honduras and Nicaragua.

The women of Jamaica, however, perform the hard labor. They do the household work, cultivate the fields, carry the hod of brick and mortar, coal the ships, load the bananas, break stone for the highways, cultivate the fields, and carry the products to market upon their heads, arrayed in a single garment of calico, and without shoes or hats. The men who work at all are the overseers, mechanics, and drivers of teams. On Sunday the women array themselves in neatly laundered dresses, put on their shoes and stockings, and in exceptional cases hats or bonnets, and attend the parish churches. They are honest, polite, and industrious, but have little regard for the marriage tie. Forty per cent. of the births are illegitimate; yet no one would wish to see the toilsome life of one of these women still further burdened by having to support a worthless husband, who would have authority over the children whom she can now claim as her own.

These people, notwithstanding their imitation of their English masters in dress, habits, and religion, are still savages in their minds and culture, though not savage in the sense of cruel or vindictive, for the negro has traits of character entirely different from those which we ordinarily attribute to savages, judged by the standard of the traditional American red man. Notwithstanding the outward semblance of the Christian religion, they only assume its more conspicuous phases. They find in church attendance a satisfaction of their gregarious tendencies, and in religious rites, especially those of the evangelical denominations, an opportunity to sing and shout and sway in rhythmic motion, just as their ancestors did in the voodoo ceremonies of the African forests. The ethical, moral, and spiritual teachings of the earnest preachers pass through their simple minds like water through a sieve; only the ceremonial and emotional phases impress them; an empty bottle,—a potent power of evil,—if set down at the door of a congregation, would send it into paroxysms of fear. On the road to and from the church, the rustling of the wind through a ceiba-tree, which in their humble minds is the dwelling-place of jumbies,[1] will offset all the sermons of the day.

Even educated young women in the normal school recently fainted from fear at sight of some trembling mercury which had been spilled upon the floor during an experiment. Obiism was more potent than science. It is believed that the "goat without horns" is still sacrificed by these people; and when a child is lost in Kingston, black hearts pale with the terrible thought that the obi-doctor has appropriated him for this purpose. In the mountains and valleys they still meet, led by some hideous obi-man, to sacrifice the rumpled cock or human child, or sway and dance until they fall in trances. Civilization should, indeed, be thankful that the strong arm of England keeps these savage instincts in subjection, and that its more merciful and humane methods have prevented the repetition in Jamaica of Haitian degradation.

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[1] Jumby, a synonym of duppy—the "harnt" (haunt) of our Southern negro.

In the mountains of the interior, the cockpit country on the west, and Portland Parish on the east, there dwell still other negroes, who have special privileges and are partially free from English rule. These are the maroons (*cimarrones* of the Spaniards), descendants of Africans who would not endure the fetters of slavery, and soon after landing broke away from bondage to these inaccessible retreats. They have certain vested rights which the other negroes do not possess, and during the past centuries they were feared by both whites and blacks; but England has at last reduced them to a condition where, while retaining their liberties, they no longer plunder the planter. They maintain the African tribal organization and have their chiefs and head men, but, otherwise than that they do not serve the white man, no difference can be seen between them and the other negroes of the island. An American who had heard much of these wild maroons resolved upon visiting their village for the purpose of feasting his eyes on a real African prince. After a tedious journey he reached the collection of huts and inquired for the head man. A venerable but ordinary-looking darky finally appeared, dressed in the same manner and speaking the same language as the other blacks of the island. Our Boston friend, after enjoying the presence of royalty to satiety, started to leave the village, when he was greeted with the customary parting: "Buckra, I t'ank you for a shilling, sah."

The character of the black man of Jamaica has been beautifully described by Trollope in his book on "The West Indies and the Spanish Main," and the reader who wishes to know more concerning his simple nature should read his description. The following story told by him excellently illustrates their childlike nature.

> Some of their efforts after dignity of costume are ineffably ludicrous. One Sunday evening, far away in the country, as I was riding with a gentleman, the proprietor of the estate around us, I

saw a young girl walking home from church. She was arrayed from head to foot in virgin white. Her gloves were on, and her parasol was up. Her hat also was white, and so was the lace, and so were the bugles which adorned it. She walked with a stately dignity that was worthy of such a costume, and worthy also of higher grandeur; for behind her walked an attendant nymph, carrying the beauty's prayer-book—on her head. A negro woman carries every burden on her head, from a tub of water weighing a hundredweight down to a bottle of physic.

When we came up to her, she turned toward us and curtsied. She curtsied, for she recognized her "massa"; but she curtsied with great dignity, for she recognized also her own finery. The girl behind with the prayer-book made the ordinary obeisance, crooking her leg up at the knee, and then standing upright quicker than thought.

"Who on earth is that princess?" said I.

"They are two sisters who both work at my mill," said my friend. "Next Sunday they will change places. Polly will have the parasol and the hat, and Jenny will carry the prayer-book on her head behind her."

His story of how the barefooted field-hand came into a shoe-shop to buy a pair of pumps, and how he imperiously demanded a piece of carpet such as dealers ordinarily have to keep their customers' stockings clean, is equally amusing.

Not the least striking feature of the Jamaican negroes is their talkativeness. The buckra man they treat with outward diffidence, but when they meet they open a rapid fire of badinage with one another, accompanied by many exclamations and loud laughter. The noise of this jabbering at the market-places—sometimes elaborate affairs in the towns, and sometimes merely fenced-in inclosures at the cross-roads—can be heard rising above all other sounds long before the locality is reached.

And what interesting spots these markets are, where dames and damsels from miles around have each brought a head-load of produce to sell—yams, potatoes, peasant coffee, sapodillas, oranges, sweet potatoes, well-browned cakes of cassava bread, plantains, peppers, and other products of their toil. They still barter in "gills" and "quatties"—old-time coins, fractions of farthings, no longer made, whose value indicates the extent of their dealings. The woman who does a business of two shillings a market-day feels well rewarded for her work, which has probably included twenty miles of walking to and fro.

But the best traits of the darkies are seen around their houses, or in the domestics of the buckra's home. Often, as one passes the huts, the black mother may be seen combing out the wool of her fatherless child—trying, trying, ever trying to eliminate those African kinks, whose temporary straightening seems in her imagination to lift the little life a step nearer the ever-hoped-for but never-attainable white man's caste. And as she lovingly performs this task, she tells weird stories which her ancestors brought from Africa, or teaches that most remarkable Jamaican alphabet—a rhyme which originated no one knows how, but which for two centuries has been handed down orally from mother to child, and which every Jamaican can repeat. It runs as follows:

A is for Assinoo;[1] see how him stan'!
B is for Buckra,[2] bery bad man.
C is for Pussy; him name Maria.
D is for Duppy;[3] him eye shine like fire.
E is for Eel; him catch in de ferry.
F is for Figgler;[4] him play sweet, bery.
G is for Governor; him live at King's House.
H is for Dry-Harbor, place poor as church-mouse.
I is for Miyself. When I sick, I go to bed.
J is for John Crow; he have a peel head.
K is for Kalaloo,[5] bery nice when him boil.
L is for Lizard, but him tail 'poil.
M is for Monkey; just look 'pon him face.
N is for Nana;[6] him cap trim wid lace.

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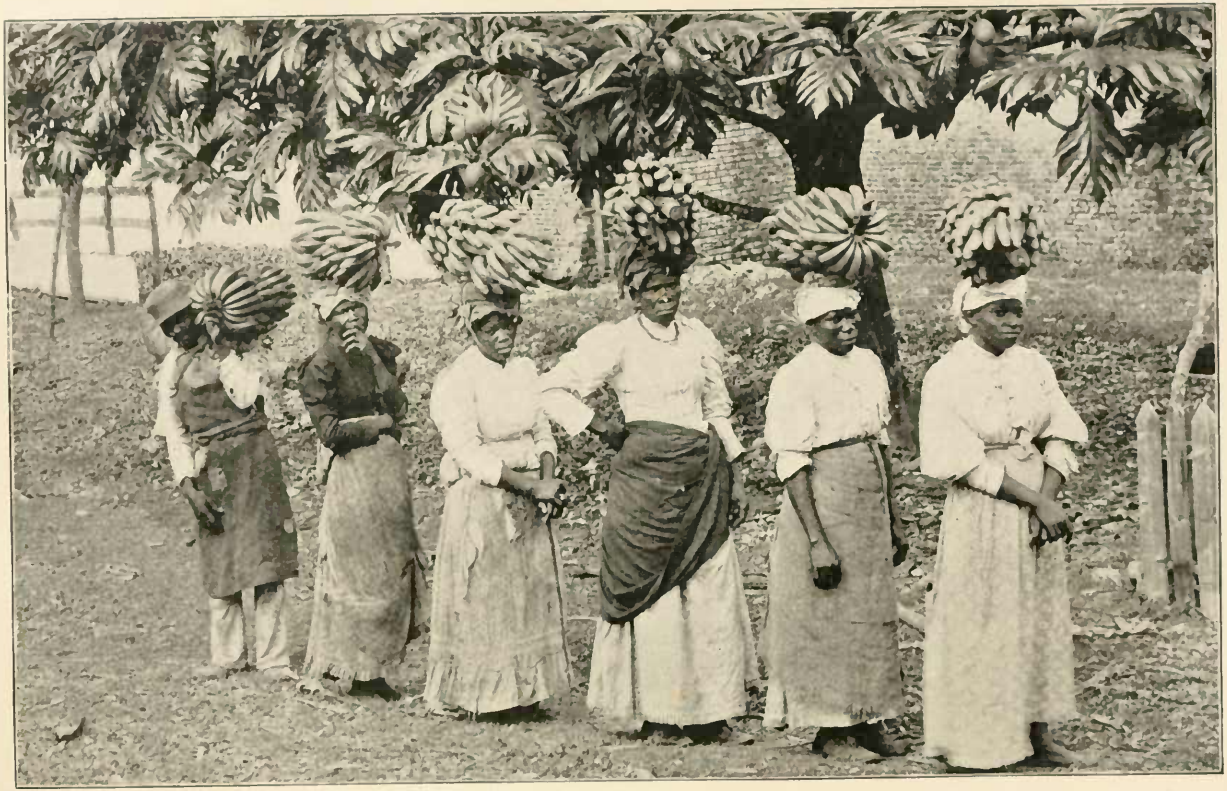
[1] Ass, donkey. [2] White man. [3] Ghost. [4] Fiddler.
[5] A kind of bird. [6] Baby (a corrupted Spanish word).



JAMAICANS CARRYING BANANAS—BREADFRUIT-TREE OVERHEAD

O is for Oliphant;[1] him have a big mouf.
P is for Potto;[2] when night come he go out.
Q is for Quattie;[3] I beg you one, massa, please.
R is for Ratta; him tiptoe 'pon cheese.
S is for Snake; him crawl in de grass.
T is for Toad, so farr'ard an' fast.
U is for Uncle. Boy, you tell him howdee!
V is for Vervine;[4] make very good tea.
W, X, Y. Hi! I really forget.
Z is for Zebedee, mending his net.

The men, if you can gain their confidence, will tell you queer stories of the donkey who would go hunting like the tiger, and how his courage failed; or other tales of African folk-lore in which the rabbit, lion, tiger, and elephant, or other animals which they know only through inherited tradition, are always introduced. These are allied to the Uncle Remus stories which Joel Chandler Harris has made familiar to American readers, and which are told wherever the African race is distributed.

The Jamaican negroes are also much given to proverbs, and they have one ready for every occasion. These proverbs are essentially the same as those told by all West Indian negroes, and no doubt represent in modified form the lore of their ancestral country. Some of them are pointed and amusing.

Three groups of islands are attached to Jamaica for administrative purposes, although not related to it in natural affinities. The largest of these are the Turks and Caicos Islands of the Bahama group, situated nearly five hundred miles to the northeast. Why they are politically controlled by Jamaica, and not by the Bahaman government, which surrounds them on all sides, is one of those inexplicable problems of the British colonial system which we cannot explain. They will be discussed with the Bahama group, to which they naturally belong.

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[1] Elephant (this word is from the old Scotch settlers).

[2] Owl.

[3] A fourth of a farthing.

[4] A plant.

The second group comprises the three lonely coral islands known as the Caymans, situated off from the track of commerce in the Caribbean Sea, one hundred and eighty miles northwest of Jamaica. They are about the same distance due west of the Santiago coast of Cuba, to which they are allied by natural affinities, rising from the submerged ridge projecting westward as a continuation of the Sierra Maestra. The largest of these islands is Grand Cayman, seventeen miles in length and four miles in width. Its coast is bold and rock-bound; the eastern and most of the northern shores are protected by coral reefs inclosing harbors of considerable size and depth, but with entrances so narrow and intricate that only small vessels can enter. One of these, the Great Sound, on the north, measures more than six miles across. The only anchorage for large vessels is under the west end.

The island is well wooded, and produces dyewoods, mahogany, cedar, and other timber. Palms grow abundantly, and are used by the natives for thatching their cottages, while the fiber is used for fishing-lines, hats, baskets, fans, and sieves. The products of the soil are similar to those of Jamaica, as are its wild animals and birds. There is good pasturage, principally guinea-grass; and horses, cattle, pigs, and poultry are raised in sufficient numbers for the inhabitants. Phosphate deposits of considerable value have recently been found and shipped to the United States. Among the natural curiosities of Grand Cayman is a cave at Bodden Town, which extends some hundreds of yards under the sea. There is also a natural cistern forty to forty-two feet deep, containing clear, sweet spring-water.

Grand Cayman was at one time the rendezvous of buccaneers, and they erected fortifications mounted by heavy guns. The latter lie embedded in the sand at Gun Key.

According to the census of 1891, the population amounted to 4322, of whom 2418 were females. The people are temperate, strong, tall, and healthy-looking, and most of them are white or colored. From the woods of the island they build themselves neat cottages and schooners. They live by fishing for turtles about the keys and banks, and by cultivating cocoanuts. There is very little money in the island, but there is no actual poverty, most of the people being able to supply all their humble needs. There are six hundred and thirty-three houses, collected in several little hamlets, including a church, a court-house, public offices, a school-house, and a prison. The climate is warm, but exceedingly salubrious. Long remarked that "no part of the world is, perhaps, more healthful than this spot." There is no resident physician, and the only ailments are those of old age.

Little Cayman is nine miles long and about a mile broad; and the third island, Cayman Brac, is ten miles long and one mile in width. These islands lie about seventy miles northeast of the Grand Cayman, and are separated by a channel seven miles wide. Little Cayman has only thirty-five people, belonging to two old families. The people lead a very lonely life, but are strong and healthy. Cayman Brac has no good anchorage, but is inhabited by people very much like those of the other islands. It has a population of five hundred and twenty-eight.

The third Jamaican dependency consists of the Morant and Pedro Keys. The Morant Keys are situated about thirty-three miles southeast of Jamaica, and consist of three small uninhabited islands. In March and April the sea-birds arrive in great numbers and cover them with eggs, which are collected and conveyed in schooners to Jamaica. Turtles are also caught. The Pedro Keys are forty or fifty miles to the southwest of Jamaica, and consist of four islets. There are a few temporary huts, and some cocoanut-trees have been planted.

CHAPTER XXIII

THE ISLAND OF SANTO DOMINGO[1]

Difficulties of nomenclature. Geographical features of the island. Irregularity of outline. Mountains and valleys. The Alps of the Antilles. Classification of the ranges. Rivers and lakes. Climate. Geology. Fauna.

SANTO DOMINGO, although second in size, is perhaps the most impoverished and backward of the Great Antilles. Its area is about two thirds that of Cuba and more than three times that of Porto Rico and Jamaica combined. The island by nature is the geographic center of the Great Antilles. Situated midway between Porto Rico and Cuba in the island chain, it is the most central and highest of the system, from which the others in either direction may be considered as radiating peninsulas. It excels them all in altitude, diversity of configuration, picturesque aspect, and natural fertility. It is so continental in its topographic aspect that away from the coast one finds it difficult to believe that he is upon an island.

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[1] Both "Haiti" and "Santo Domingo" are used as general terms to designate this island, occupied by the republics of "Haiti" and "San Domingo." It is not necessary to enter into an historic discussion concerning this nomenclature, further than to say that we shall use the Spanish term "Santo Domingo" in speaking of the island as a whole, "San Domingo" for the republic of that name, and "Haiti" for the territory embraced within the Haitian republic. It is a matter of regret that the old name "Hispaniola" has become obsolete.

In these pages I have also intentionally avoided terming the inhabitants of this island Dominicans, even though the San Domingoans may in these later days so call themselves. The only true Dominicans are the inhabitants of Dominica, one of the larger islands of the Lesser Antilles.

Santo Domingo presents many phases of interest to the student. Besides the fact that it is the only island of the American Mediterranean which did not depend politically upon some European power, it is interesting for its historical associations. Since the date of its discovery until within the past decade, nearly every year of its history has been marked by some tumultuous event or political revolution. Nowhere on the face of the earth, especially within the past century, has there been presented such a rapid panorama of governmental changes. The French and Spanish supplanted each other, only to be driven from the island by the blacks and mulattos; since then many independent governments, accompanied by revolutions of remarkable interest, have been successively set up amid constant strife and turmoil. Yet, on the whole, there has been a progressive evolution to a goal, at last in sight, of stability and progress. It was the first land colonized in the New World by Europeans, the starting-point of that civilization which spread in the western hemisphere, and is now spreading in the distant Indies of which Columbus thought this very island a portion. It is the locality where African slavery was first introduced into America, and where, strangely enough, emancipation was first proclaimed. Over it has been wielded the power of many European nations, the blood of the children has been lavishly poured upon its soil, and yet to-day "it rests upon the bosom of those tropic seas, as beautiful, majestic, and fruitful in all its natural gifts as when Columbus first discovered it, waiting only the assistance of law and sound government to take its proper place in civilization."

It has been said that its exposed geographic position during the formative days of American history has been in part responsible for the present conditions, brought upon it by its being successively the battle-ground of the Spaniards and Indians, the bucaneers, the English, the French, the Haitians, and the San Domingoans themselves.

Taken altogether and looked at in its natural aspects, no spot on earth can be more lovely, and it is safe to say that probably no extent of territory contains within itself, under proper auspices, so many elements of prosperity, worldly success, and happiness as this island. Yet, viewed in the light of present interests, the island perhaps is the least important of the Antilles. Its geography and natural history, still but little explored, will prove voluminous.

The greatest length of the island from east to west is a little more than four hundred miles; its greatest width just west of the geographic center is one hundred and sixty miles; and its periphery is nearly a thousand miles. Its area is about thirty-one thousand square miles—six times that of Connecticut, and a little more than that of South Carolina.

The outline of the island is the most irregular of all the Great Antilles, being noted for an absence of long-continued straight stretches of coast-line and marked by numerous indentations and angular headlands. This outline resembles that of a swimming frog, whose outstretched head and body, occupied by the eastern republic of San Domingo, point toward Porto Rico, while the two long trailing peninsulas of the Haitian country, extending westward toward Cuba and Jamaica, resemble the outstretched hind legs. On the northeast the peninsula of Samana reaches out from the land like an extended fore limb.

Inclosed by the western peninsula is the great Gulf of Gonaïves, an immense semicircular bay with a coast-line of two hundred miles. Samana Bay, on the northeast, is another extensive indentation into the mainland, while Barahona Bay, near the middle of the south coast, and Manzanilla Bay, on the north, are also conspicuous indentations.

Adjacent to the main island are a few large islands, not bordering coral reefs like the keys of Cuba, but so similar to the main island in their mountainous configuration that they are apparently remnants of it which have been severed in recent geologic time. The largest of these is Gonave, situated in the western gulf of that name, just south of the northern peninsula of St. Nicolas. North of the same peninsula is the Île de la Tortue, twenty-two miles long and five miles broad, famous in history as the resort of bucaneers and the site of the first French settlement. At the southeast point is Saona, nearly the size of La Tortue. The peninsulas of Samana, on the northeast coast, and Tiburon, on the southwest coast, were both islands until recent years, the passage between them and the mainland having been but lately closed by nature. Altavela, lying just off the point of the middle south coast, is a smaller islet, with the marked configuration of the mainland.

The coast of Santo Domingo is fringed in many places with reefs, not so numerous or extensive as those of Cuba. These are developed inside the bays, and Samana Bay is more than half filled by them. Manzanilla Bay is similarly obstructed. The western gulf is also fringed by many coral reefs, and Gonave Island is connected on both sides with the shore by reefs broken by a few open passages. The south coast of the Tiburon peninsula is bordered by a labyrinth of coral reefs, which also occur at the eastern extremity of Santo Domingo. In general, the coast is rugged and mountainous to the edge of the sea, with here and there a few benches of elevated reef rock or high terraces leading to the lofty uplands.

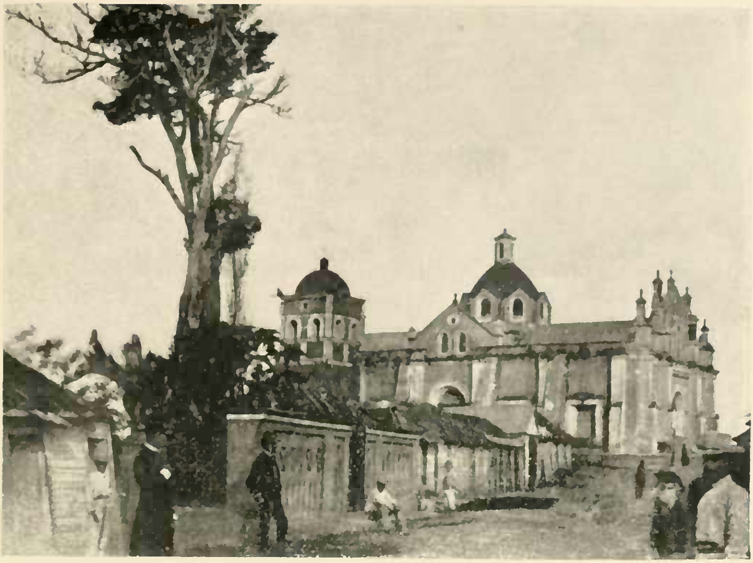
Approached from the sea, the island has the aspect of a huge mass of mountains rising precipitously from the water, extending in all directions and jumbled up in hopeless confusion. These appear to come down to the water's brink and to be covered with shrubbery and trees of a not particularly inviting aspect, and one wonders where the people live, or where valuable crops can be grown. From whatever direction the mariner approaches the island, these mountains are ever visible; in fact, the Indian name of the island (Haiti) signifies "mountains."

It has been my observation that the political disorganization of tropical countries is proportionate to their rugosity. If there is one country better adapted, topographically, for political disunity and revolution than another, by being divided by inaccessible mountain barriers into small habitable areas, that country, excepting Colombia, is Santo Domingo. The horizontal area encircled by its waters is trebled by the verticality of the mountains, and whoever contemplates its political reclamation must consider these wild mountains, fit only for the habitation of wild men.

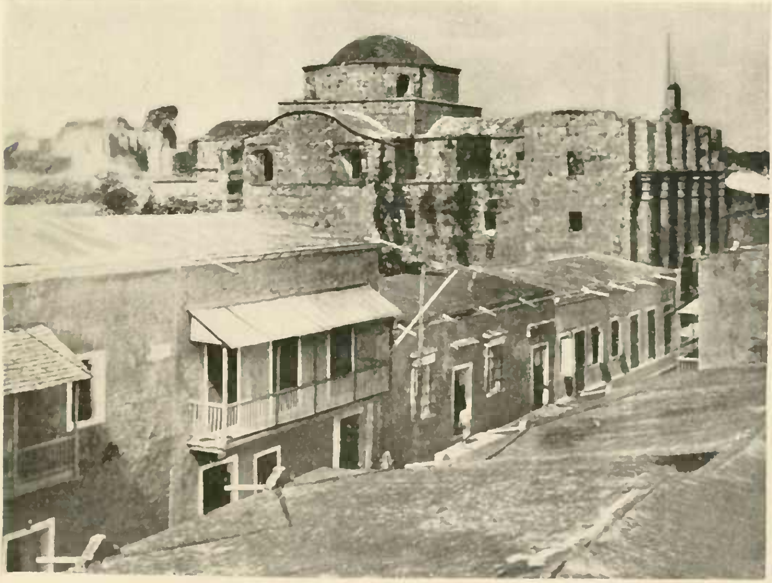
It would be as great an undertaking to describe the mountains of Santo Domingo as to describe the Alps. In a previous chapter a few words have been said concerning their relation to the Great Antillean uplift, of which they are the center and culmination. It is impossible to convey to the reader more than a passing idea of these ranges and summits, with their hundreds of bewildering names. They occupy fully four fifths of the island, and render much of it inaccessible. In general, the aspect of the whole island is like the mountainous eastern ends of Jamaica and Cuba.

The mountains consist of lofty forest-covered peaks and ridges, like the Blue Mountains of Jamaica and the Sierra Maestra of Cuba, between which lie extensive fertile valleys, threaded by streams, all of which—mountains, valleys, and streams—have a prevalent trend of west-northwest and south-southeast. These rugged mountain ranges may be compared to a series of gigantic ridges and furrows, so disconnected and irregularly arranged that if a slight invasion of the sea should take place through subsidence, the whole would resolve itself into four distinct islands, disposed from east to west in an irregular but subparallel arrangement.

The northern fragment, the Monte Cristi range, would



SANTO CERRO CHURCH AND NISPERO DE COLON, OR TREE OF COLUMBUS, BENEATH WHICH MASS WAS CELEBRATED AFTER THE GREAT VICTORY OVER THE INDIANS OF LA VEGA



A STREET SHOWING CATHEDRAL

SANTO DOMINGO

be found along the eastern half of the north coast from Manzanilla Bay, where the boundary of the two republics meets the sea, eastward to the Samana peninsula. This is separated from the remaining portion of the island by a great plain stretching from Samana Bay to Manzanilla Bay, threaded by two long rivers, the Yaqui del Norte and the Yuna. South of this the main larger orographic section, the Sierra Cibao, is formed by a zone of lofty mountain lands which runs diagonally the entire length of the island from the eastern cape, Engano Point, to Cape St. Nicolas, on the Windward Passage. The third and shorter section, which is a western ramification of the above, offshooting near the center of the range, is limited by the river Artibonite on the north, the San Juan on the east, and on the south by a valley occupied by a chain of lakes. The fourth and last section is formed by the tall mountains of the southwestern peninsula. The central of these systems, the Cibao (Rocky) Mountains, constitute the mother range of the whole Antillean uplift, and extend through the island for a distance of four hundred miles. At its eastern end this range is low and narrow, rarely acquiring a height of more than a thousand feet; but going westward near the center of the island, it increases in area and altitude, rising until some of its numerous peaks are from eight to nine thousand feet high—great projecting summits, standing above a labyrinth of secondary crests extending in every direction from the axial line as superb monuments of erosion which have survived the general lowering of the land through the geologic ages.

The highest peaks are not necessarily along the main crest, the loftiest, known as Mount Tina, 10,300 feet in height, being situated to the south of the axial line, northwest of the city of San Domingo. The highest eminence of the main ridge is Pico del Yaqui, so called because it is constantly enveloped in silvery clouds. This rises to 9700 feet, while near by are many mountains 8000 feet or more in altitude. Still farther west, toward the Windward

Passage, are hundreds of these summits, continuing out to the very end of the Gonave peninsula. On the boundary between the two republics are at least eight high peaks, forming a rough, wild country, inhabited by *la vallière*, or wild maroons of Haiti.

Westward in Haiti is the mountain on which the despotic negro king Christophe erected the marvelous fortress of La Ferrière, at an altitude of 2560 feet. This mountain is the Bonnet-à-la-Évêque, the "Bishop's Cap." Still westward these mountains continue out to the very end of the rugged St. Nicolas peninsula, near which is the Morne d'Or (3962 feet), which has been alleged, without reason, to be an extinct volcano; while in the vicinity are many other interesting mountains belonging to the same range. The eastern part of this central range has a thousand names for its many spurs and lateral ranges. From the Pico del Yaqui, which, although not the highest mountain of the island, is nevertheless the center of its orographic system, two great rivers bearing its name flow to the north and south coasts. Several secondary ranges here branch off to the north. On the south the mountains pass gradually into rolling hills, between which are many small valleys supporting a poor population.

The mountains of the Cibao range in general are high and closely crowded summits, rising from sinuously curving crest-lines, consisting of old igneous rocks protruding through the disturbed sedimentary strata, and constituting an irregularly shaped mass, often traversing the main axis in the central portion of the range, and extending with it through the western part into the Haitian republic.

The base of the mountain of Dondon is granite, on which rest limestones and sandstones, conglomerates, and, finally, a sheet of the universal white limestone of the Antilles. These rocks are intensely folded and plicated. In the central portion of these mountains are vast rocky cañons, penetrated only by hunters of the wild hog. One of these peaks, that of San José de los Mates, is from five to six thousand feet high, cut from the naked rocks, which in the adjacent mountains reach an altitude of seven thousand feet.

Elsewhere in places the mountains are clad in forests and other verdure. Up to four thousand feet pines are found; farther up, as the precipitation increases, are beautiful leafy woods; while on the summits are dense thickets of ferns. Vines and bushes render these forests impassable, while the traveler has to slash his way through thickets of ferns often so dense that he must crawl on hands and knees through a tunnel cut by himself, and blinded by spores at every step. East of Jimonea the floral character of the mountains suddenly changes; the pine disappears completely, and spruce appears in its place.

Across the ranges of the central system, which divide the republic of San Domingo into a northern and southern district, there are few passes. The most important is that known as the Widow's Saddle, some five thousand feet in height. Across this the road rises laboriously through deep ravines in a thousand windings to the Saddle, where the beautiful spectacle makes amends for the difficulties of the ascent. Here, as described by Moreau:

> The enchanted eye is arrested at a thousand points, where the beauty of one glimpse seems to disappear beside a still more beautiful view, each pleasant, picturesque, and majestic in its outlook. Here the shining surface of the sea at a great distance peeps out at intervals, contrasting with the azure tone of the distant land, which in its turn delights the eye by the contrast with the green of the nearer points. Rivers also mingle the charm of their tortuous ways with this enchanting picture, while the dark-browed front of the near-by chains rises to the sublime. The traveler, as it were, is beside himself; it is only with grief that he tears himself away from this place to commence the opposite descent, constantly turning his face in order to continue as long as possible the delicious gratification of the senses which the scenic beauty affords.

Another pass, the Sillon de la Viuda, the main gate of passage between the north and south sides of San Domingo, is reached by difficult paths through deep abysses. A second but rarely frequented pass between the same regions runs for miles along the crest of a narrow range, through woods, mud, and slime, to the grassy slopes of the Savana de la Puerta. Continuous and abundant rainfall at certain seasons transforms the roads into deep mud. Other passes are hardly used, and are scarcely more than paths which climb over the central range.

In Haiti similar passes connect the various portions of the island. The northern part of the republic has overland communication with the south by a post-road running through the capes of the Plaisance and Limbé, five thousand feet high, including, on the Gonave side, the irksome and laborious climb known as Les Escaliers, a steep paved road built like a stairway by the black colonel Durocher.

The next mountain range of importance is that which constitutes the long and narrow chain running through the southern or Tiburon peninsula of Haiti, which bears several names. This elongated sierra, lying chiefly in Haiti, borders the western half of the south coast, and is separated from the main body of the island by a long chain of lakes extending from the interior indentation of the great Gulf of Gonaïves, at Port-au-Prince, eastward to Barahona Bay. The mountain groups comprising this chain, which are practically continuous with one another, beginning on the east, are the Bandruco and the Mandel de los Negros Maron in San Domingo, succeeded in Haiti by the long chain known as the La Selle and De la Hotte Mountains. This range, as a whole, contains some of the highest eminences found in the republic of Haiti, and has near its ends two culminating points known as Mornes, 2880 feet high, while the average height of the crest is nearly five thousand feet, rising directly above the sea. The Mornes de la Hotte, at the western end, received their name from their resemblance to an inverted hamper. The summits of these ranges have not been ascended or measured, and a thousand fables are told by the superstitious natives dwelling on their slopes of the *viens-viens*, or wild negroes; of a mysterious lake whose waters constantly change color, and of pillars of rock which make resonant noises. Several difficult passes lead across these ranges from Jacmel, the principal southern seaport of Haiti, to Port-au-Prince.

The Monte Cristi chain, which follows the northern coast, is so called from the town in whose immediate vicinity its last rocks dip into the sea, and is separated from the rest of the island by the Vega Real. The greatest elevation, Loma Diego Campo, 3855 feet in altitude, lies near the center of the range. The summits broaden and flatten perceptibly to the eastward. The western part of the sierra is dry and barren, and from Isabella onward it is marked by dry yellow hills covered by thickets of cactus and bramble. Owing to their slight altitude they receive but little rainfall.

Besides the systematic ranges above mentioned there are many solitary mountains upon the island, rising from the plains or bordering islets. Among these independent features is the Morne du Cap, just west of Cape Haitien. A few miles from the ruins of the old city of La Vega, the Cerro Santo rises 787 feet from the midst of a plain. Columbus climbed this height with his companions on his first visit to the island, in 1493. The view from the summit was so beautiful that he planted a cross and called the plain the Vega Real ("Royal Plain").

At Hatillo Maimon is a hill of magnetic iron, described by Schomburgk and Gabb. It is 100 feet high, 100 feet wide, 300 to 400 feet broad. The side toward the river is massive limestone, while the southern half is a mass of compact magnetic iron ore, sixty-seven to sixty-eight per cent. of native iron.

Briefly recapitulating the topography of the island, we find three main ranges, almost all of which run parallel to the island axis, or in a direction west-northwest: first, the great central Cibao range, with its two side branches, the Tina Mountains and the Montagnes Noires Cahos; second, the southern cordillera, with its two culminations and outlying Canal Mountains; and, third, the Sierra de Monte Cristi, with the Puerta Plata group in the foreground, including the small ridge of the Samana peninsula. At the same time there are some less important isolated elevations, such as the Morne du Cap, the Sambo Hills, the Penones, and Mount Busu. In addition to the sharp slopes of the thousands of V-shaped gorges cut by the numerous streams, the main ranges are separated from one another, especially in the republic of San Domingo, by extensive central valley plains, which were at one time either arms of the ocean or lakes, and, like the mountains, they trend northward and westerly. The largest of these, lying between the north-coast sierra of Monte Cristi and the great central cordillera of Cibao, extends one hundred miles from the sea at the Haitian boundary into the Gulf of Samana, which is its prolongation. Two rivers, the Yaqui and Yuna, enter the middle portion of this valley from the central mountains, and, diverging, thread it in opposite directions to the sea. The western portion, watered by the first-mentioned river, is known as the valley of Santiago or of the Yaqui, while the eastern part is the Vega Real. In no places is this valley over fifteen miles in width, and at each end it is marked by salt-marshes and lagoons. The two divisions present marked dissimilarities in vegetation, due to differences of rainfall and moisture. The windward division, covered by beautiful deciduous plants, is a most fertile, beautiful, and well-watered valley. The Santiago plain is an arid region covered by chaparral, where, as in Arizona, several species of thorny acacias dispute the ground with cactus, here more diversified than anywhere in the West Indies, and including arborescent opuntias, like the nopal of Mexico; tall, columnar cereus, like the pitahaya of California; and melon- and cushion-shaped cacti of several kinds—in all nearly twenty species. The land is now used only for grazing, but is well situated for irrigation. In fact, the region is a miniature duplication of the American deserts.

South of the Cibao range, between its slopes and the Caribbean Sea, in the eastern third of the island, is another extensive plain, ninety-five miles in length, known as the plain of Seylo, which slopes from the central mountains to the sea and terminates west of San Domingo city, in which the principal population of the southern half of the republic of San Domingo is located. This is a more broken region than the great plain of the north, and is in part open prairie and in part forest. A belt of forest averaging twelve miles in width borders the terraced Caribbean coast. The line of juncture between the coast forest and the interior prairies is marked by beautiful park-like landscapes, carpeted with green grass and dotted by clumps of trees. The soil of this plain is gravelly to the westward, but changes into loams and clays toward the east.

West of San Domingo city, between it and Azua, for a distance of fifty miles, a broad belt of mountainous country projecting southward from the central range comes down to the shore of the sea. Then comes the Bay of Ocoa, surrounded by a plain from which two narrow valleys, or rather chains of valleys, lead north-of-west toward the Windward Passage. Around Azua the plain is another desert in the oasis, if we may be permitted to transpose the familiar figure. The whole neighborhood is barren, dry, and thorny. Yet three miles to the southwest the whole character of the country changes so completely that one finds there the best sugar-estates on the island.

Northwest of Azua, leading toward the south side of the St. Nicolas peninsula, and surrounded by high mountains, is the Vale of Constanzia. This somewhat inaccessible valley is described in glowing terms by those who have seen it. Its soil is exceedingly fertile and is covered by a deep mantle of guinea-grass. During the "old Spanish time" this is said to have been the richest region of the island, but it was depopulated by the turmoils of warfare, owing to its proximity to the boundary of the warring republics, although the San Domingoans are now reoccupying it.

Still south of the Constanzia, separated by high mountains, is the great depression of the Laguna Enriquillo, reaching from the Azua plain, on the Caribbean, to Port-au-Prince, on the Windward Passage, and almost severing the Tiburon peninsula of Haiti, with its wild inhabitants, from the remainder of the island. This valley was an oceanic strait in very recent geologic times.

The island, like all the Antilles, is abundantly watered by streams flowing from the perpetual region of rainfall of the high mountains. Every district has its rivulet or river, while four great mother streams rise in the geographic center of the island, around the slopes of the Pico del Yaqui, and find their way to the sea in different directions. Two of these, the Manai (or Yuna) and the Yaqui of the north, flow northward to the great plain, upon reaching which they turn east and west respectively in opposite directions, one into the Bay of Samana, on the east, and the other into Manzanilla Bay. They are navigable by canoes for long distances. The Artibonite flows from this summit westward through Haiti, of which it is the chief stream, into the Gulf of Gonaïves. To the southward runs the San Juan, emptying into Barahona Bay, San Domingo. Smaller rivers and their tributaries drain every portion of the island. The most copious of these is the Ozama, flowing into the Caribbean at the city of San Domingo. One of its tributaries, the Brujuelas, after flowing on the surface to within twelve miles of the coast, plunges into a chasm.

The only lakes are those of the east-and-west depression, which separates the southern peninsula from the main portion of the island. The largest of these stands at a height of about three hundred feet; owing to its saltness, the Haitian negroes call it the Étang Salé. This basin, formerly an oceanic inlet, is said to be still inhabited by sharks, porpoises, and even crocodiles. It has an area of one hundred and seventy square miles and is very deep. After heavy rains it occasionally forms a continuous sheet of water with another lake, called Funda, which extends northwest toward Port-au-Prince Bay. The united lake has a total length of sixty miles, with an average breadth of nine or ten, and is larger than the Lake of Geneva. Farther south in the mountains of Tiburon peninsula is the fresh-water lake, Icotea de Limon.

In general, the geology of the island is similar to that of Cuba and Jamaica, more especially the eastern ends, being composed of four principal formations: the older mountain rocks, of Cretaceous and Tertiary age, made up of igneous rocks and clays, mantled by gravels and crystalline limestone; the white limestones of Tertiary age; recent alluvial formations; and the coast limestone of elevated reef rock. No recent volcanic rocks are known. The geology and minerals of Santo Domingo have been the subject of special reports by many writers, including three American geologists, Messrs. Blake, Gabb, and Marvin.

Coal is reported in considerable quantities in the vicinity of Samana Bay and elsewhere, but on examination it has proved to be lignite, of little value for fuel. Silver, platinum, manganese, tin, antimony, marble, opal, and chalcedony are among the exploited minerals.

The climate of Santo Domingo is more diversified than that of any of the other Antilles, presenting wide extremes of moisture, aridity, and temperature. The heat at Port-au-Prince, at the western end of the island, owing to its sheltered situation, is probably greater than at any other seaport in the West Indies, reaching 94° to 96° every day between April and October. The nights are on an average 10° to 20° cooler than the days, so that they seem cool and refreshing in comparison. This is in the so-called rainy season, the rains falling, as a rule, late in the afternoon or evenings. During the rest of the year, which covers the dry season from October to April, the temperature is on an average about 10° lower.

On the less sheltered coasts, even at sea-level, it is much cooler; and as one ascends the mountains of the interior, the intense heat of the seaboard becomes moderated. Sixteen hundred feet above the sea, Americans and Europeans complain of the cold at night, though even there the mercury never falls below 45°.

At Port-au-Prince the rainy season covers the summer months, but in the other parts of the republic the rains run into and cover the winter months, so that there is never a season when rain prevails everywhere. In general, on the lower slopes of the Windward side and in the depressed interior valleys, it is arid, rain sometimes being almost constantly lacking; but the mountains above two thousand feet are perpetually bathed in rainfall, mists, or dews.

With the exception of wild hogs on the Île de la Tortue, some untamed horses and cattle in the eastern part of Haiti, and wild goats, there are few animals on the island. Even the agouti, that peculiar Antillean mammal, is believed to be nearly extinct, and the selenodon (or coati) is rarely found. There are no poisonous snakes. Land-turtles, reptiles, and lizards abound, but they are harmless. Of the forty species of birds recorded in Haiti, seventeen are peculiar to it. The cayman abounds in all the rivers of the Despoblado district, and the iguana sometimes attains a length of five feet.

CHAPTER XXIV

THE REPUBLIC OF SAN DOMINGO

Political and social conditions of the island as a whole. The republic of San Domingo. Interesting early history. The present government and administration. Commerce and agriculture. Mineral resources. Population. Predominance of mulattos. Old San Domingo city. Early American landmarks. Other points of interest.

THE political and social conditions of Santo Domingo are no less interesting than its natural features. Nowhere else can be seen such peculiar conditions, showing as they do, at the eastern end of the island the decline and degeneration of a people once the most opulent, and at the other extremity the successive steps in the ascent of a transplanted inferior race from savagery through barbarism to a degree of civilization. These two republics are respectively San Domingo and Haiti—the first a mulatto government, the second one of the negro. While the domain of San Domingo nominally includes two thirds of the whole, the island is really divisible into three distinct parts. The eastern third contains nearly all the San Domingoan population. The middle third, known as the Despoblado ("Depopulated"), is an uninhabited neutral ground, made barren not only by nature, which filled it with inaccessible mountains, but by the warfare between the two races. It is a wild region covered with forests of tropical trees, with a few valleys where the soil is rich and the grass is especially luxuriant and supports many wild cattle. The western third is the land of the Haitians. Between the two governments there is a political antipathy as strong and forbidding as their rugged frontier. Port-au-Prince, the capital of the western republic, lies due south of the city of New York, while San Domingo is similarly situated relative to Boston.

Perhaps no other country has had such a varied political history as San Domingo. Columbus discovered the island in 1492, and found it more beautiful than Cuba. He exhausted the language of panegyric in describing it as resembling the most favored provinces of Andalusia. Concerning the aborigines he said: "I swear to your Majesties, there is not in the world a better nation nor a better land; they love their neighbors as themselves, and their discourse is ever sweet and gentle, accompanied with a smile; and though it is true that they are naked, yet their manners are decorous and praiseworthy."

Columbus first entered the Haitian Gulf of Gonaïves, which he called San Nicolas, and because of the wrecking of one of his caravels made a temporary settlement on the Bay of St. Thomas, now called Auel, where he left a small party of his men. After sailing east as far as Samana he returned to Spain. On his second voyage he returned to the island, and finding that his men had been murdered by the Indians, established a new colony, called Isabella, in the present area of San Juan. The spot chosen was unhealthful. He explored the interior of the island, found much gold, and remained long enough to see the colony of Isabella well started. In 1498 he made his third visit, and established himself near the present city of San Domingo.

In those days of early settlement, profitable mines were opened, advances were made in agriculture, and in 1495 San Domingo, Isabella, Concepcion de la Vega, Santiago, Puerta Plata, and Bonao, were all flourishing Spanish villages. In 1509 Bobadilla came out from Spain and threw Columbus and his brother Bartholomew into prison. The cell in which they were confined is still shown in the old citadel of San Domingo city.

Sugar, which has been so intimately connected with West Indian development and decay, was introduced in 1506, and in a few years its cultivation became the principal occupation of the colonists. It is unnecessary to review the events of these earlier years, when Spanish institutions became firmly implanted on American soil. The reduction of the natives to slavery; their utilization in the cane-fields and gold-mines, and final extermination through hardships; the raiding of the Bahamas and adjacent islands for other slaves, and the introduction of African slavery, all followed one another in rapid succession. As early as 1522 African slaves on the sugar-plantations were sufficiently numerous to mutiny. The Inquisition was introduced in 1517.

During the few years between its discovery and 1540, San Domingo flourished. It witnessed in this time the construction of cities, the introduction of sugar and African slavery into the New World, the increase of vast herds of wild cattle upon the island, and the establishment of the old civilization of Spain in every detail. The mines of gold and silver produced lordly fortunes for their owners. But decay began as early as 1540. The colonists were seduced away by the reports of riches on the American continent, and then followed a period of attack from the bucaneers of England and France, and the country has had very little peace since then, until within the past two decades. The people received in full force the terrible incursions of the freebooters from the middle of the sixteenth until the opening of the present century. The little island of Tortuga, near the northwest corner of Haiti, became the center and headquarters from which they made their forays. The French and English virtually seized the western and northern parts of the island piece by piece, the former gradually acquiring possession of the western half, as more particularly noted in the description of Haiti.

Up to 1697 the entire island was a Spanish colony. In the latter year the western portion, embracing the present republic of Haiti, was ceded to France. In 1785, the two hundred and seventy-fifth year of Spanish rule, France was given sovereignty over the whole island, which was formally abandoned by the Spanish government in 1801, Toussaint L'Ouverture taking possession in the name of France. Then followed Haiti's independence of France, and the period of the black Haitian empire under Dessalines until 1806, when Spain for the second time reëstablished herself in the eastern half of the island, under the old name of San Domingo, Haiti continuing as a separate country. In 1821, during the period of general Spanish-American revolution, the San Domingoans proclaimed their independence of Spain, and established for themselves a republican form of government under the flag and authority of Colombia. At this time most of the old Spanish element migrated from the island. In the following year the two republics of the island again united their destinies under a government known as the republic of Haiti, which continued until 1843. In 1844 San Domingo revolted from Haiti and established the Republica Dominicana. From that date to the present Haiti and San Domingo have remained independent of each other and have grown more and more distinct. In 1861 Spain for the third time established its authority in San Domingo, which was retained for four years, until 1865, when its flag was withdrawn. Since then San Domingo has maintained its autonomy. Thus it will be seen that within less than a century San Domingo has been successively under the Spanish, French, Haitian empire, Colombia, Haitian republic, independent, Spanish, and independent flags. Moreover, the country has been torn by internal revolutions, and up to within recent years by constant warfare with Haiti. The people, realizing the hopelessness of their isolated position and the need of a strongly organized government, in 1869 voted to annex themselves to the United States. A commission was appointed by the United States government to investigate the condition of affairs. It visited the island in 1871, and reported favorably, but the annexation treaty was defeated in the United States Senate. During the past few years, according to the consular reports, the country has prospered and become comparatively quiet. Many immigrants, recently arrived from Cuba, have been encouraged to settle on the island.

The present republic, founded in 1844, is governed under a constitution by the terms of which the legislative power is vested in a congress of twenty-two deputies, chosen by direct popular vote with restricted suffrage. The executive is vested in a president, chosen by an electoral college for the term of four years. The present president is General Ulysses Heureaux, chosen in 1897. The ministry is composed of the heads of the departments of the interior and police, finance and commerce, justice and public instruction, war and marine, public works, and foreign affairs.

The country is divided into ten provinces or districts, each administered by a governor appointed by the president. The various communes, cantons, and sections are presided over by prefects appointed by the governors. There are a supreme court of justice and eleven district courts, besides local alcaldes. A small army exists, with a regiment stationed in each province.

In 1896 the exports were valued at $2,198,817 gold; the imports at $1,703,595. The customs duties are of a prohibitory character, and hence commerce is not large. The principal articles of export, in their order of value, are tobacco, coffee, cocoa, sugar, mahogany, logwood, hides, goatskins, and honey.

The revenue in 1896 was $1,545,450. The expenditure is $1,351,250. The public debt is $13,589,750. This is guaranteed by the customs dues and by a first mortgage on the Central Dominican Railway. The collection of the customs is controlled by the Santo Domingo Improvement

Company of New York. The United States gold dollar is the standard of the island.

The Roman Catholic is the official state religion, other forms being permitted under certain restrictions. There are fifty-four parishes.

The state educational institutions are primary, superior, technical, and normal schools, and a professional school with the character of a university. The last school census, taken in 1884, showed that there were two hundred and one municipal schools for primary instruction with 7708 pupils. Primary instruction is free and obligatory, being supported by the communes and by central aid.

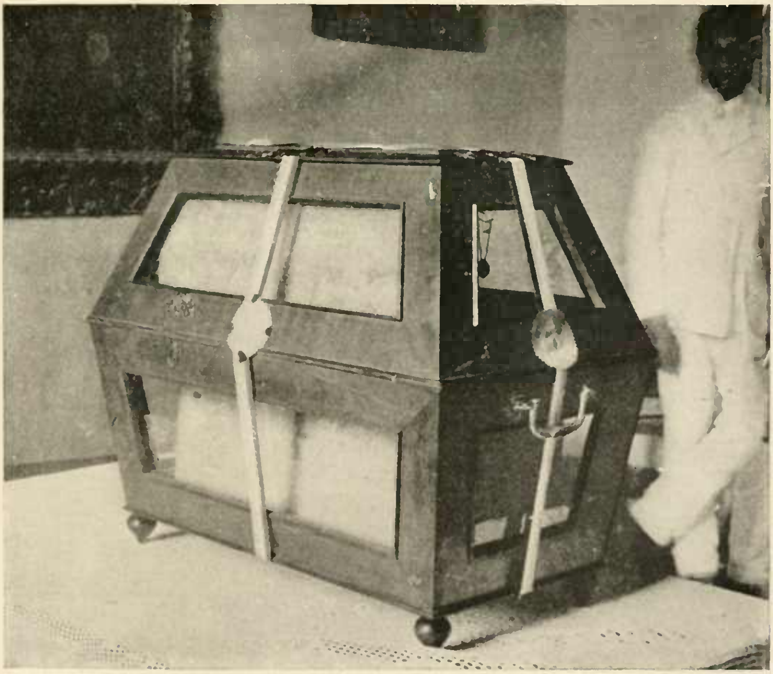
About forty newspapers are published in the republic.

San Domingo has the most fertile sugar-lands in the West Indies. Large sugar-plantations and -factories are found in the south and west. The cane does not require frequent replanting, and plantations have often yielded fifteen cuttings from the original roots. The cane is also highly saccharine. Its production has quadrupled in the last ten years, and the estates and factories represent a capitalization of about twelve million dollars. About one million six hundred thousand dollars is annually expended upon them for labor. This industry is almost entirely a growth of the last fifteen years. The export to the United States for 1896 amounted to two million five hundred thousand pounds—about one fortieth the normal Cuban shipment.

The mountain regions of San Domingo, like those of Haiti, Cuba, and Jamaica, are especially suited to the culture of coffee. The annual yield is about a million and a half pounds. The area of uncultivated lands suitable for coffee in this island probably exceeds that of all the rest of the Antilles.

Cocoa is extensively cultivated, much foreign capital having been invested in it within recent years, and the production having multiplied fivefold within the past decade.

CITADEL WHERE COLUMBUS WAS IMPRISONED



ALLEGED COFFIN OF COLUMBUS

SANTO DOMINGO

Tobacco grows readily everywhere, and, in addition to local use, nearly thirteen million pounds are annually exported. The principal area of culture is on the northern side. It is said that some of the tobacco of the uplands of the interior is quite as highly flavored and as good as the best Vuelta Abajo, and if Cuban skill were exercised in its culture and curing it would be a most valuable article. Yet tobacco-culture is declining, while the production of coffee, cocoa, and bananas, as well as cane-sugar, is on the increase. Some attention has recently been given to cattle-raising and dairy produce. A large part of the Vega Real, as well as other parts of San Domingo, is admirably adapted to cultivation by irrigation, which could be accomplished at a very trifling expense in comparison with other lands.

What we have said concerning tropical fruits in the other Antilles applies equally to Santo Domingo. They grow everywhere throughout the island. American companies have appreciated the banana-lands, and large shipments are made from Samana Bay. The luxuriance of the native forests is one of the most striking features; large tracts of these in the interior have been preserved, owing to their inaccessibility to transportation. On these mountain slopes is an abundance, not only of the choicest cabinet-woods, such as mahogany, satinwoods, and cedar, but also a great variety of timber especially valuable for house- and ship-building, and many other woods which enter into manufactures.

San Domingo has been a center of the mining interests, but at present its mineral resources are neglected. The republic in former years engaged an American geologist, Mr. W. M. Gabb, to make a geological survey of its domain, and a good report has been published thereon. Gold, which was worked extensively in the earlier years of its discovery, occurs both in placers in the plains and in quartz veins higher up in the mountains. The gravel is rich in quality, but the quantity is too small over any given area to make it of value. There are many ancient pits which were worked by the Spaniards. Professor W. M. Blake, who accompanied the United States commission to the island, says: "There is no doubt that there is a gold region of considerable extent and promise in the island, but I did not see anything to excite great enthusiasm regarding the deposits, or to encourage expectation of immediate large returns for mining operations there. There is enough, however, possibly to justify the labor and expense of carefully prospecting the ground." It is said that many of the country people always have more or less grain gold in their possession, and that the washing of it is a considerable source of minor income. It is a matter of history that the Spaniards in the earlier years of discovery remitted over four hundred and sixty thousand dollars in gold per annum to Spain, and that silver-mines also were worked. Furthermore, these mines were abandoned principally on account of the subsequent political troubles. There is also evidence that copper, similar to that found in Cuba, occurs in San Domingo. Iron ore of excellent quality is found on the Maymon River, about one hundred miles from Samana Bay, but its transportation is still a problem.

The population of San Domingo in 1888 was six hundred and ten thousand, or about thirty-four to the square mile. It was then and is still mainly composed of mixtures of the early Spanish inhabitants with the aborigines and negroes, resulting in a class of Spanish mulattos. There are some whites of European descent and a few foreign merchants. The Spanish language prevails, although French and English are commonly spoken in the cities. This population is neither savage nor vicious, although its vitality has been greatly sapped by the unfortunate political events which drove the superior classes from the island. The better people seem to have the same qualities as the Cubans and Porto Ricans, while the peasantry is a harmless though shiftless class, in no manner to be compared with the Haitians. Hazard states that at a public meeting accorded to the Hon. Andrew D. White, in which the élite of the people of Sabao were present, he was struck by the fine forms and intellectual heads of those present, comprising representatives of the church, law, medicine, and the leading native merchants.

As the interior is not well supplied with highways, access from one district to another is difficult. A railroad is completed between Sanchez, on Samana Bay, and La Vega, sixty-two miles beyond, and is being carried on to Santiago and Puerta Plata. During the past year another has been completed connecting Santiago with the port of Puerta Plata, on the north coast. The distance covered is forty-five miles. Years have been spent in the construction of this line, and it crosses two mountain ranges. Yet another line is contemplated between Barahona and Cerro de Sal. The total mileage of railways in operation is one hundred and sixteen. There are fifty-one post-offices and four hundred and thirty miles of telegraph.

The coast-line of San Domingo is nine hundred and forty miles in extent. The republic has seven open ports: San Domingo city and Azua, on the south; Samana, on the northeast; Puerta Plata, Monte Cristi, Macoris, and Sanchez, on the north. The great Bay of Samana is to San Domingo what Mole St. Nicolas is to Haiti. From every point of view it is one of the most advantageous possessions in the Antilles. It is thirty miles long, ten miles wide, and capable of accommodating the largest fleets, and ships of the greatest draft. It is well sheltered, especially against the north winds, free from rocks and shoals, and restricted by a narrow entrance, but commercially is little utilized. The republic has two small steamers.

The country has but few cities of importance, and most of these are in a state of decadence. The principal are San Domingo and Azua, on the south coast; the interior city of Santiago, the metropolis of the Vega Real; and Puerta Plata, the seaport of San Domingo on the north coast.

San Domingo city (population twenty-five thousand) is in an angle inclosed by the sea on the south side and the mouth of the river Ozama on the west. It is perhaps the most perfect specimen of the sixteenth-century Spanish city in America. It is completely surrounded by a medieval wall, forty-five hundred yards in circumference. As one looks from the sea upon the ancient walls and bastions and the Old-World buildings, every feature recalls the events of the first century of Spanish-American prosperity. The houses on straight and narrow streets are built of masonry, with gaily colored walls, immense doors, and large windows like those of Havana and San Juan; but once within the city its inhabitants remove the spell, for its lower population consists of dirty negroes, and filth everywhere abounds. The suburbs are composed of unattractive frame and mud huts thatched with palm or straw. The walls of the older houses are constructed of stone and *mamposteria* (a calcareous concrete). As the traveler through the deserted and decayed streets of San Domingo looks at the immense structures, the solid walls and ruins of former greatness, he finds himself wondering what has become of those incentives to enterprise which were the origin of such a city.

The old churches and ruins are interesting, but otherwise there are few attractive buildings. The government palace, while grandiose in effect, owing to its balconied piazzas supported on solid pillars, is neither handsome nor striking. The old cathedral is the most interesting building in the city; in fact, it is one of the great monuments of the western hemisphere. This Gothic edifice, which faces the public square, is built of solid stone, and has a nave and two wings, being constructed after the model of a church in Rome. It was begun in 1512 and finished in 1540. The weather-stained walls of the exterior show marks of its great antiquity, while the interior, with its pillars, arches, crypts, and innumerable altars, confirms the accounts of those writers who have given such glowing descriptions of its splendor in ancient days. In its vaults are buried many of the notable characters of early American history, including the family of Columbus, and, if the natives are to be believed, the remains of the immortal explorer himself, which, according to them, were not taken to Havana. Another old landmark of the city is the castle of Columbus, situated upon the east bank of the Ozama River, and built by Diego Columbus, the admiral's son. It is a solid stone structure surrounded by a wall originally intended to protect it from the attacks of the aborigines. It is now in ruin and decay.

Long years of adversity and revolution have impoverished the city. No improvements take place, and communication with the other towns of the island is difficult. Besides being the seat of government, it is also the seat of the Roman Catholic archbishopric.

The place has a good reputation for healthfulness, notwithstanding its filth. The temperature shows a daily variation from 64° in the morning to 85° at midday.

Santiago de los Caballeros, situated on the Yaqui River, in the northern plain, surrounded by hills and mountains, is probably the most important city of the republic. This also is one of the most ancient places in the New World. It was subjected to attacks from the early French bucaneers, burned by fires, shaken by earthquakes, and almost destroyed by the later revolutions. The city is built around a large plaza, or square, in which the market is held; the streets are straight and rectangular, and the houses in the main part of the town are constructed of stone. It is about one hundred and sixty miles northwest of the capital, with which it has no commercial intercourse, its seaport being the town of Puerta Plata, on the north coast. It lies in the heart of the finest agricultural region of the island. Its climate is salubrious. The population of eight thousand is largely composed of whites, many of whom are intelligent and well educated. The place controls the tobacco-trade, which is largely in the hands of the Germans.

Concepcion de la Vega, on the river Camu, one of the tributaries of the Yuna, a short distance from Santiago, is the successor to a famous old town established by Columbus in 1504, which was located six miles northwest. This town lies in the center of a beautiful savanna completely surrounded by hills, and is laid out rectangularly, with the usual plaza in the center. It has a cathedral out of all proportion to the population, an imposing structure of stone with many arches. Six miles from the town is the famous *cerro* of Columbus, which I have previously mentioned. Upon the level top of this hill is a wooden church belonging to the Brothers of Mercy and commanding a superb view of the Vega Real.

Puerta Plata is the principal northern seaport, having good anchorage and an extensive trade in tobacco. It has an estimated population of fifteen thousand, and is the outlet of the Vega Real district, being connected by rail with Santiago. It is said that this city was planned by Columbus on his first voyage.

Azua de la Compostela, situated about fifty-five miles west of San Domingo city, is the next town of importance on the south coast, but has only fifteen hundred inhabitants. It is in an arid plain, previously described, but the adjacent country abounds in salt and asphaltum, and near by are vast grazing-grounds as well as prosperous cane-fields.

Of the many villages, Samana, on the northern side of Samana Bay, has about one thousand inhabitants; Monte Cristi, on the northern coast, thirty miles east of Cape Haitien, three thousand; and Seybo, fifty miles northeast of San Domingo city, five thousand.

CHAPTER XXV

THE REPUBLIC OF HAITI

Its mountainous character. Extensive coast-line. Its constitution and organization. Education and religion. Commerce and revenue. Communication. Cities (Cape Haitien, Port de Paix, Gonaïves, St. Marc, Port-au-Prince, Aux Cayes). The people. Supremacy of the blacks. Race antipathies. Personal appearance and domestic relations of the Haitians. Superstitions. The struggle for liberty. The blacks not to blame for the condition of the republic. Island products and commerce.

THE republic of Haiti, which occupies the western third of Santo Domingo, is quite a different country from San Domingo, in its natural, political, and sociologic features. While the latter country is decadent in its agricultural, commercial, and governmental conditions, Haiti has the merit of being thoroughly alive, and, while not presenting an altogether pleasing picture, is a country worthy of serious study and capable of development. Its area is 10,204 English square miles.

As has been said by others, the configuration of the country appears a confused agglomeration of mountains, hills, and valleys, most irregular in form—precipices, deep hollows, vales apparently without an outlet, but with water occasionally glistening far below, and cottages scattered here and there, with groves of fruit-trees and bananas clustering round the rude dwellings. Gradually, however, the eye, growing accustomed to the scene, separates the mountains into distinct ranges, the hills into attendant buttresses, the valleys assume regular forms as watersheds, and the streams can be traced irregularly meandering towards the ocean. Toward the sea the valleys extend into plains, the rushing torrents become broad though shallow rivers, and mountains that bound the flat open country push their buttresses almost into the sea.

The whole of the republic is more or less mountainous, the most noted mountain ranges being the La Haute and Black Mountains (which constitute the axes of the two projecting peninsulas), and a line of high summits on the eastern frontier.

The La Haute range is a continuation of the great axial sierra of the island, while the Black Mountains constitute the peculiar isolated southern group previously described. Notwithstanding the generally mountainous configuration, there are many beautiful slopes and valleys, such as the cul-de-sac near Port-au-Prince, the plains of Gonaïves, Artibonite, Arcahaie, Port Margot, Léogane, Aux Cayes, and those that follow the northern coast. There are a few islands attached to Haiti, the principal of which are La Tortue on the north, Gonave on the west, and L'Île-à-Vache on the south coast. The first two are famous for their mahogany-trees.

The republic has a large extent of accessible coast-line, marked by numerous bays and inlets, including eleven ports open to foreign commerce, and numerous smaller ports open only to the coasting-trade.

The largest river of Haiti is the Artibonite, which flows to the west through the great central valley of the same name. There are forty-three other streams distinguished by their names.

The flora of Haiti has been only partially explored by Tussac, Descourtils, and others. It is unmarked by arid types like those of the plains of San Domingo, and includes one hundred and sixty plants supposed to possess medicinal properties. No cultivation, gathering, or exportation of anything in this line for commercial purposes appears ever to have been undertaken.

The government, though republican in form, has been described as a military despotism in which all the power is concentrated in the hands of the president, who enforces or ignores the laws according to his pleasure. It is true that the government is more or less despotic, and is too often marked by revolutions. Of the eleven rulers of the island since its freedom, nearly all have been assassinated or exiled. Only one has escaped being either shot or deported, and only two ever completed their terms of office. Nevertheless, there is a semblance of civilized government, more advanced than has been represented, which appears especially liberal in comparison with the low degree of culture of the inhabitants and their past treatment.

The republic has a constitution in which, notwithstanding frequent amendment, the essential principles of free republican government have been preserved since the time of Dessalines, and in general the changes made in it from time to time have shown a steady tendency toward liberalism. For example, in addition to the provisions as to the inviolability of the territory, the absolute freedom of religious worship, and the equality of citizens before the law, it provides for the independence of the judiciary, trial by jury, individual freedom, exemption from unlawful domiciliary visits and arbitrary arrests, encouragement of education (primary-school attendance being made obligatory), the freedom of the press and of speech, the sacredness of epistolary correspondence, the inhibition of ex post facto laws, the security of property rights, and individual responsibility for public acts.

Furthermore, although until within a recent period citizenship was restricted to persons of African origin, and the right to possess property went with citizenship, just as it did in Great Britain and her colonies up to 1870, and just as it does now to some extent in some of the

States of the American Union, yet the constitution expressly provides that every foreigner can become a citizen by fulfilling the regulations established by law.

As the origin of the republic, its language, its traditions, the manners and social customs of its people, are essentially French, so its laws and forms of legal procedure are based on those of France. Indeed, as far as possible they are an exact copy of those prevailing in France. The Code Napoléon, which has so strong a foothold in all countries of Latin origin, is probably more closely followed in Haiti than in any other of the American republics. The legislative power rests in the National Assembly, divided into two chambers, the Senate and House of Representatives. The latter is elected for the term of three years by the direct vote of all male citizens engaged in some occupation; while the thirty-nine members of the Senate are nominated for six years by the House of Representatives from two lists presented by the executive and the electoral colleges. The executive power is in the hands of a president, who, according to the constitution, must be elected by the people, but in recent years has generally been chosen by the National Assembly, and in some instances by the troops, and by delegates of parties acting as representatives of the people. The nominal term of the office of the president is seven years. The present president of the republic is General Tiresias Simon Sam, elected in 1896, who receives a salary of $22,800.

The divisions of the country are, like those of France, departments, arrondissements, and communes. The general of the department and the general of the arrondissement are the officers to whom all powers are delegated, although there are hosts of minor officials. These generals are despotic, as a rule, and their dictum is law, as they are seldom called to account for their actions by the superior authority.

There are five departments, twenty-three arrondissements, and sixty-seven communes. The chief department, near the center of the republic, is that of the West, in which Port-au-Prince is situated. The Department of the North, of which Cape Haitien is the capital, is the most troublesome, on account of the revolutionary ideas of its inhabitants. The people are always restless and dislike the inhabitants of the rest of the republic. The Department of the South, which includes the western half of the Tiburon peninsula, is the most backward of all, has been generally neglected, and is inhabited by wild people. Aux Cayes is the capital of this province.

Haiti has an army of 6828 men, chiefly infantry. There is a special Guard of the Government, numbering 650 men, commanded by ten generals, who also act as aides-de-camp to the president. The republic also possesses a flotilla of six small vessels officered by Americans and Europeans, which may be ranked as third-class cruisers.

From 1804 to the present the moral welfare of Haiti has been largely neglected by other nations and people, who have extended to it neither sympathy, recognition, nor aid. It was not until 1862 that the Senate of the United States, on the recommendation of President Lincoln, voted to recognize its political independence; and the concordat with the Pope in 1869, whereby the Catholic Church undertook mission work on the island, is the only spiritual assistance of any kind it has received. It is true that occasional missionaries have attempted work upon the island. Various denominations have labored in the same field without clashing or without friction with one another, and the government has continually endeavored to increase their membership.

The Roman Catholic Church, although the established religion, has never been popular. Among the lower class the influence of voodooism and the fanatical opposition of the Catholic priesthood to Freemasonry, which is a strong influence, have combined to prevent the church from gaining either the confidence or affection of the nation. Even over women the priests exercise less influence than in other countries. The Catholic priests, who are paid by the state, are comparatively few in number, and dislike heartily the life in the interior. The republic is divided into five dioceses, and there are one hundred and ten priests. There are, however, only eighty-four parishes, although there are chapels in many places where services are occasionally held.

Religious toleration in other countries came after long struggles between different denominations. Haiti is an exception to all such precedents, inasmuch as without possessing, so far as is known, a single Protestant citizen, and certainly without one Protestant church or even one Protestant meeting ever having been held there, she boldly proclaimed religious freedom and her independence at the same time.

From the date of independence until 1869, while the Catholic religion had never ceased to be fostered by the state or to be professed by the Haitian citizens, the ecclesiastical system remained in a semidisorganized state, and the church lost the affection and respect of the people. In 1869 President Jeffrad concluded a concordat with the Holy See, agreeing to pay a rehabilitated priesthood from the treasury of the state and to furnish it with suitable residences. Soon afterward the church was put on a regular footing, which has since been sustained. In the hope of raising up a native priesthood, and in order that there might always be at hand priests especially prepared for the work in Haiti, the church established at Paris the Grand Seminary of Haiti, which is still maintained. There is an Episcopal bishop, but he receives little pecuniary support, and the Protestant population does not number four thousand souls. The Haitians are devoted to Freemasonry, and love to surround the funerals of their brethren with all the pomp of the order.

The government of Haiti has always manifested a commendable concern for the education of the youth of the country, and to that end has never ceased to encourage the establishment of schools. There has been a steady tendency toward increased educational facilities at public expense. It is believed that no less than five thousand Haitian girls are being educated under the care of the sisters of the Roman Church. There are four hundred national schools, besides private schools and five lycées. Elementary education is free, the country being divided into fourteen inspectors' districts, and nearly one million dollars allotted annually. In 1876 there were four lycées, six superior girls' schools, five secondary schools, one hundred and sixty-five primary schools, two hundred rural schools, one school of medicine, and one of music, with a total of twenty thousand pupils. The Sisters of Charity and Christian Brothers have schools in Port-au-Prince.

The unit of money on the island is the *gourde*, or dollar, the nominal value of which is that of the American dollar, but this so fluctuates that the annual average may be seventeen per cent. premium on the American dollar. The revenue of Haiti is derived exclusively from customs paid in American gold on exports, and in currency gourdes on imports. The external debt of 1887 was $13,476,113, and the internal debt about the same.

The imports of Haiti in 1895 were $6,232,335, and the exports $13,788,562, showing a heavy balance of trade in favor of the island. The exports consist chiefly of coffee, cocoa, and logwood. In 1895 the quantities exported were as follows: coffee, 75,371,865 pounds; cocoa, 2,291,548 pounds; logwood, 138,042,053 pounds. Other exports are cotton, gum, and honey. Of the imports in 1896 the value of $4,134,000 came from the United States; $1,340,000 from France; $304,000 from Germany; $206,000 from Great Britain. In 1896, 260 vessels entered at Port-au-Prince, 189 at Cape Haitien, and 161 at Aux Cayes.

It will be seen that, notwithstanding Haiti's political and social degradation, it is financially more prosperous than the more highly civilized West Indies, excepting Cuba, and shows the largest balance of trade. It is also interesting to us from the fact that it gives our country a proportionate exchange in trade for our purchases of its products.

Haiti is in treaty relations with most of the great countries of the world, and maintains six legations—at Paris, Washington, Berlin, Madrid, London, and San Domingo. There are also more than fifty consuls-general, consuls, and vice-consuls, stationed at as many different ports in the United States, on the Isthmus of Panama, in the Antilles, Europe, and elsewhere. The island's diplomatic representatives have always acquitted themselves creditably, and each of them speaks the language of the country to which he is accredited. Mr. Stephen Preston was the Haitian minister at Washington continuously for nearly twenty years, and during a third of that time he was the dean of the diplomatic corps. As far as the general public knows, there are pending between other governments and Haiti no questions of sufficient importance to affect her dignity, menace her autonomy, or interfere with the free working of the ordinary machinery for administering her internal affairs.

It may be stated that, in the long run and in her own way, Haiti always meets every financial obligation; and it is an acknowledged fact that she has sometimes consented to pay, and has paid, claims which no great powers like France or Great Britain would have been expected to recognize, taking this course in order to avoid what seemed at the moment possible complications with foreign powers, which have appeared to be only too ready to take advantage of her comparative isolation and weakness.

By far the most important agricultural product of Haiti is coffee; indeed, so important is this that the prosperity of the country is measured by it from year to year. The plant flourishes everywhere in the uplands above three hundred feet. The quality is most excellent, but owing to the imperfect and indifferent way in which, until within a few years, it was gathered and prepared, it has never become a favorite in the United States, and most of it finds its way to France and Belgium for consumption. A good crop for export is set down at seventy million pounds.

Logwood is second in importance to coffee. It is considered to be of the best quality. The amount of it exported annually depends on the energy of the people in cutting it. The average yearly exportation is about 178,000,000 pounds.

Cocoa comes in as a sort of adjunct to coffee. While it is found in several localities, it cannot be said to flourish and abound. The bulk of it is grown on the western half of the Tiburon peninsula.

Cotton also, a product not usually found in the West Indies, is grown in Haiti. During the Civil War as much as four and a half million pounds was grown; but with the fall in price the product was reduced to less than one and a half million pounds for export in 1892. It grows with extraordinary facility, requiring no culture whatever. It does not grow on bushes, but on trees, which last several years and produce two crops annually. It is of a fine silky quality, and its culture might be made exceedingly profitable, as no country in the world is better adapted to its growth.

Besides the logwood, other woods are regularly exported, including mahogany, lignum-vitæ, bois-jaune (West Indian sandalwood), and bayarondes. Mahogany is the most important of these and is of excellent quality. There has been a marked falling off of this exportation since 1867, due largely to the fact of the exhaustion of available material within the limits of profitable transportation to the seaboard.

It must be confessed that the products of Haiti are chiefly those which require little human toil, and that its agricultural possibilities are hardly drawn upon. Coffee is, in fact, the only cultivated crop of importance, and even many of the coffee-trees are self-propagated. The blacks upon attaining their freedom permitted the island to return to its primeval state. In colonial times the island produced nearly two million English pounds of sugar, valued at $25,000,000, besides valuable crops of indigo and more coffee than is now exported. Under favorable conditions the capacity of the island for production is almost incalculable. There is no article produced in the tropics that is not found or that could not be raised in Haiti with profit. It would seem that almost anything could be grown either in the uplands or the lowlands of this beautiful country. Even pineapples, peaches, strawberries, blackberries, and other fruits are found in the uplands. Those who have watched the rise and remarkable growth of the export of fruits from the neighboring island of Jamaica within the past few years, and who have any knowledge of the fertility of the soil of Haiti, assert that no argument need be used to show that under reasonably favorable conditions the exportation of fruit could easily be made profitable. Oranges (sweet and sour), citrons, plantains, bananas, lemons, shaddocks, pineapples, cocoanuts, mangos, artichokes, alligator-pears, sapodillas, and the like abound. It is said that mango is so common that during the height of its season, from May to June, the sale of breadstuffs falls off as much as fifty per cent.

Absolutely nothing is known of the geological and mineral resources of Haiti, although gold, platinum, silver, copper, iron ore, tin, manganese, antimony, sulphur, rock-salt, bitumen, asphaltum, and phosphates exist, some of them in quantities. Mining interests have hitherto been entirely neglected, and there are no laws on the subject in the country. It has been the policy of the government not to encourage enterprises that might tend to prostrate or impair the agricultural spirit and industry of the people.

Communication in Haiti, where there are thirty-one post-offices, is maintained entirely by overland roads and coasting-vessels. Most of the highways are notoriously bad, especially those leading from the central valley over the mountains to the northern and southern coasts. The roads in the interior are, in most cases, little more than

CATHEDRAL

STREET SCENE

STREET SCENE

PORT-AU-PRINCE, HAITI

mule-paths. This is due partly to neglect and partly to topographical conditions which expose them to the destructive influences of torrential rains. In the time of the French occupation many of them were kept in excellent condition, and as late as the empire of Soulouque, carriages and other vehicles could be freely used through quite a number of localities where vehicular transportation is not now practicable. The fact that the republic once had good roads, and that in the island of Martinique, where the conditions for maintaining them are quite as difficult as in Haiti, French engineering has established and maintains the best of highways, proves the possibilities in this respect of the latter country. The present government appears to be alive to the necessity of better transportation facilities.

A coast service, maintained since 1863, is carried on by four steamers. These are aided by the government, and their regular trips are so arranged that they cover the whole extent of the Haitian coast every ten days, taking passengers and mails, and touching regularly at no less than twenty-six ports. The northern route covers two hundred and forty and the southern three hundred and fifteen miles of the coast.

The foreign communication is excellent, the country being visited by more lines of foreign steamers than any other West Indian island. Haiti has regular communication with New York by the Atlas Steamship Company and the Royal Dutch West India Mail Service Company, and the William P. Clyde & Company line. The Royal Mail Steamship Company's steamers call every second week at Jacmel, affording connection with the Lesser Antilles and England. The Compagnie Générale Transatlantique's steamers, sailing from Havre and Bordeaux to Vera Cruz, stop at Cape Haitien on the 7th, and at Port-au-Prince on the 8th of each month, and on their homeward run touch at those ports on the 27th of each month. This company also has an annex steamer which, starting from Fort-de-France, calls once or twice a month at Jacmel, Port-au-Prince, Petit Goâve, Jérémie, Aux Cayes, and numerous other places in the West Indies. The Spanish Royal Mail steamer calls at Port-au-Prince en route to Cuba, Mexico, the United States, and Europe. The Havana coasting-steamers between Havana and Santiago de Cuba and Porto Rico also call at Port-au-Prince. Connection is had with Germany by the Hamburg Mail Steamship Company.

Haiti has numerous ports along its extensive littoral, eleven of which are open to foreign commerce. Each of these eleven ports, the principal of which will be described later, is an outlet to a comparatively large, populous, and productive country lying back of it. Generally the exports and imports reach far beyond what one might be led to expect if guided by the appearance and size of the ports themselves. Competent authorities have observed that the volume of business done at Port-au-Prince is as great as that of any other city of its size in the world. These seaports impress the visitor unfavorably, because he finds there very little of the aspect of neatness and prosperity which characterizes the other cities and towns of the Antilles. The wharves are dilapidated; the port service is slow and inefficient; the streets and sidewalks are poorly kept; the stores and dwellings have an irregular look; hotels are scarce and poor; the streets are not lighted, and the roads leading into and throughout the interior are in a very bad condition.

Besides the eleven ports fully open to foreign commerce, there are four at which vessels are permitted to take cargo, but not formally to enter from or clear for the high seas. They are Fort Liberté, on the northern coast, east of Cape Haitien; Mole St. Nicolas, at the northwestern extremity of the island; Anse d'Hainault, which was once an open port, at the end of the western peninsula; and Port-à-Piment, between Cape Tiburon and Aux Cayes.

There are also at least twenty other small ports not open to foreign trade, mostly in the south and west, which afford fairly safe approach and anchorage to vessels, and all of which contribute more or less to the coasting-trade.

The principal coastal cities, beginning on the north side, are Cape Haitien, Port de Paix, Gonaïves, Port-au-Prince, Petit Goâve, Miragoâne, Jérémie, Aux Cayes, and Jacmel.

Cape Haitien, or, as it is universally called in Haiti, "the Cape," on the northern coast, is the most picturesque town in the republic. It is beautifully situated on a commodious harbor having a narrow entrance, which could be most easily defended. This town is the second in size and importance in the republic, and is by many considered the most picturesque city in the island; it is situated at the foot of a hill which slopes gradually to the sea, and is hemmed in on three sides by mountains. Its population is estimated at twenty-nine thousand, but this undoubtedly includes the people of the adjacent commune. Under the rule of the French, it was the gay capital of the colony, and its wealth and splendors and luxury gained for it the name "Little Paris," or the "Paris of Haiti." It was also the capital of black King Henri's dominions. It was beautifully laid out, and built on the plan of some of the older European cities, with the *rigoles*, or gutters, in the middle of the streets. The Cape is further noted as having been the scene of a terrible earthquake in 1842, when, in an instant, it was nearly all thrown into ruins, and several thousand inhabitants perished. Sir Spenser St. John says that to this day the country people talk of that awful event, and never forget to relate how they rushed in to plunder the place, and none lent a helping hand to aid the half-buried citizens. It has also suffered from a bombardment by the British (in 1865), from civil commotions and disastrous fires.

In spite of all these misfortunes, and in spite, too, of the fact, striking to the new visitor, that many of the fine buildings thrown down by the great earthquake have never yet been rebuilt, the Cape is to-day the center, so to speak, of a remarkably thriving and prosperous district, of large and increasing business interests, promising well for the future. Here, as at other ports facing the sea to the north, the trade-winds come over the cool blue waters, and the tropical heats are greatly modified. This city is the terminus of the French line of oceanic cable leading directly to New York, Cuba, and Jamaica.

Commercially contributing towns and communes are La Plaine du Nord (population 5000), L'Acul du Nord (10,000), and Milot (6000). Near Milot are still to be seen the truly imposing ruins of Christophe's palace of Sans Souci, and not far off those of his wonderful citadel, La Ferrière, which from its mountain height overlooked and commanded the commune. It is of the most solid masonry, every stone of which is said to have cost a human life, and covers the whole peak of the mountain. Some of the walls were eighty feet in height and sixteen feet in thickness. Years of labor were spent to build this citadel, which was destroyed in a few minutes by an earthquake.

The northern province is noted for its fertility, abundance of rain, numerous rivers, and the superior intelligence and industry of its inhabitants.

Port de Paix, named by Columbus Valparaiso ("Valley of Paradise"), is several hours' sail westward from Cape Haitien, about midway between that city and Mole St. Nicolas. It is a town of ten thousand inhabitants, and is noted as the last point evacuated by the French in December, 1803. It is well situated at the mouth of Les Trois-Rivières, facing the famous Île de la Tortue, and is considered healthful. It has a good harbor in front, and a fine, rich country behind it. Near it, a little to the south of east, is the important town of St. Louis du Nord, in a commune which has a population of sixteen thousand. There are at present on foot propositions and projects looking to the construction of a railway from Port de Paix southward through the valley of the Trois-Rivières, which is a considerable stream, to Gros Morne, a commune of twenty-two thousand inhabitants, there to connect by an offshoot with a road projected to run through the great central plain of the Artibonite.

To the west of Cape Haitien, at the northwest end of the Nicolas peninsula, is Mole St. Nicolas, the place where Europeans first landed. This superb harbor, called the Gibraltar of the New World, remained almost unsettled until 1764, but has been successively peopled by French, German, and English, and at different times immense sums of money have been spent on its forts and walls, now dismantled and ruined. The bay makes a fine picture from the sea, and ships of the largest size can ride out the gales with safety. This is the most important place at the Haitian end of the island, commanding as it does the Windward Channel between Haiti and Cuba. The western coast is sterile and barren, the shores rising in level plains or terraces called platforms, similar to those of eastern Cuba.

Gonaïves, which is considered more purely a Haitian town than any other on the seaboard, because its foundation and origin were less due to the French colonists, is situated opposite Port de Paix, on the southern side of the northern peninsula. It is reached from Port de Paix by a few hours' sail, going first westward to the Mole St. Nicolas, and thence sailing to the east again. The commune has a population of eighteen thousand, and the town is one of the most thriving in the republic; it is considered healthful, though situated in the midst of a sandy, salty region. In spite of the fact that it has more than once been devastated by revolutions and fires, it still has an important foreign commerce. It was from this port that Toussaint L'Ouverture was embarked as a captive during a night in June, 1802, on board the French frigate *La Créole*, and it was here, too, that Dessalines issued the declaration of Haitian independence, January 1, 1804. Within its district in the interior are the communes of Terre Neuve (population 6000), Gros Morne (22,000), and Ennery (6000), the cherished residence of Toussaint, all rich and productive centers of population.

St. Marc is situated about half-way between Gonaïves and Port-au-Prince, on a horseshoe-shaped bay whose waters are very deep, and at one extremity of the great plain of the Artibonite, Gonaïves being at the other extremity. The Artibonite River, the largest in Haiti, flows into the bay between the two cities. This plain faces along the coast for a distance of about fifty miles, and stretches back into the interior for fully sixty miles. It is noted for its great fertility and richness in every tropical production, in which respect it has hardly a superior. There are now on hand projects, pretty well matured, for running a railway through it.

St. Marc was formerly built almost entirely of stone, but the structures of that material have gradually given place to others of wood. It is a town of commercial importance, the population of the commune being estimated at twenty thousand. The largest place behind it and within easy reach is Verrettes (communal population 12,000).

Port-au-Prince, the capital, is situated at the extreme eastern end of the deep indentation of the Gulf of Gonaïves. The ground slopes most gracefully to the water's edge. The streets, carefully laid out at right angles to one another by the original French settlers, are broad, but utterly neglected. Every one throws his garbage out of the front door, and heaps of manure, broken bottles and crockery, and every species of rubbish abound. The topographic position of the city, with its environs of mountains and plains, is very beautiful. It contains about sixty thousand inhabitants, and possesses every natural advantage that a capital could require. Little use, however, is made of these advantages, and the place is unpleasant, owing to the lack of sanitation.

The national palace (of wood), the *quartiers ministères* (the offices of the several departments of the government), some of the buildings devoted to commerce, to religious worship, and to schools, the national foundry, and other edifices, would be regarded as creditable to any country. Most of the other buildings are strikingly shabby. There are many small cottages and huts by the side of the few decent-looking dwellings. The larger number of poorly constructed houses are made of wood imported from the United States. The church is a large wooden building disfigured by numerous wretched paintings, in which the Saviour is occasionally represented as an ill-drawn negro. It is said that there are more than a thousand "busses" (cabs) licensed to carry passengers in the city, at twenty cents a "course" (ride from one place to another without stopping) within the city limits. It is well, however, for the stranger to make a strict bargain with his driver before going one rod beyond those limits.

Port-au-Prince is well supplied with pure water brought from the mountain-side in its rear. With its unstable government (which pays no attention to sanitation) and its great heat, this city ought to be the most unhealthful place in the tropics, but it is not so. In a few of the more commercial streets where foreigners reside, attention is paid to cleanliness, but the remainder of the city is foul-smelling and dirty. The most common diseases are bilious and malarial fevers. Yellow fever is exotic in Haiti, being always brought from abroad. Fevers of a typhoid type are rare. Pulmonary diseases prevail among the natives. Indeed, Haiti would be an excellent resort for persons afflicted with certain diseases, and is freer from epidemics than most other tropical countries. Cholera has never appeared there, although smallpox and yellow fever frequently break out. Physicians of Port-au-Prince say that Haiti is more healthful than any other island in the Antilles. Furthermore, its environment of high mountains, cutting off the trade-winds, is such as to make it the hottest place in the island; but, in spite of all that has been said and written to the contrary, it is not now regarded as unhealthful for foreigners. Some of its immediate environs, such as Turgeau,—which, covered with commodious residences of the wealthy, is on the hillside behind the large and beautiful Champ de Mars, on which are two well-kept hotels, Martissant and Bisotou,—overlook the bay to the right of the capital, and are about four or five miles from it. The great and important plain of the cul-de-sac, in which are situated the considerable villages Drouillard and Croix des Bouquets, are quite charming. A favorite place for foreigners to visit is Furey, which is part of a day's ride, passing Kenskoff up the mountain from Pétionville. The elevation is probably not far from six thousand feet at this place, and to one accustomed to the heats of the capital the temperature seems absolutely chilly, though the lowest recorded temperature is only 45° F.

Scattered here and there through the cul-de-sac, and running up to the mountain-sides on its borders, are large plantations under cultivation. In some instances these form communities by themselves, the laborers on each of them generally working on shares, and having schools for their children, and a chapel for religious worship on Sundays.

Port-au-Prince was nearly destroyed by an earthquake in 1770. The curse of the city is fire; immense conflagrations have been frequent, sometimes destroying as many as five hundred houses at a time. It has been estimated that the equivalent of the whole city at any one time has been destroyed in the course of every twenty-five years by conflagration. It is not, however, probable that this will be the case hereafter, because of the present plentiful supply of water, the introduction of suitable means for combating fires, and the tendency to erect fire-proof buildings rather than those of wood.

Amid all vicissitudes Port-au-Prince has maintained its relative commercial importance, although the beautiful port is being gradually filled up by the refuse of the city and the silt of the adjacent mountains, and no effort is made to preserve or improve it.

Petit Goâve stands facing an excellent bay, only a few leagues to the westward of the capital. The population of the commune is estimated at twenty-five thousand. Not far to the southeast of it is the lake called Étang Duricie, which is filled with fish and turtles, and is frequented by wild ducks and other water-birds. In the town itself is a considerable establishment for hulling and preparing coffee.

Miragoâne, still farther westward, was formerly a port of fair importance; but the town itself was nearly destroyed and its commerce ruined by the Bazelais' attempt at revolution in 1883–84. Its communal population is set down at eighteen thousand.

Jérémie, the birthplace of the elder Dumas, lies to the west of Miragoâne, on the northern coast of the western peninsula of the island, and is noted for its export of cocoa. It is a prosperous and thriving place, and its population is estimated at thirty-five thousand. It stands or faces on a bay whose waters are often so turbulent as to render landing difficult.

Aux Cayes, about midway on the Caribbean side of the Tiburon peninsula, was formerly the most populous and thriving city in the south of the republic. From Jérémie it is reached by sailing first westward to Cape Dame Marie, then turning south round the end of the peninsula, passing Cape Tiburon, and finally proceeding east along the southern coast. It has a commune population estimated at twenty-five thousand, an important foreign commerce, and a variety of domestic industries. A small stream running through it, called La Ravine du Sud, sometimes inundates parts of the city in the rainy seasons. The government has recently entered upon measures to correct this evil and to improve the harbor.

Aquin is a smaller town lying only a few miles farther east than Aux Cayes, but the population of the city and commune is given as twenty thousand. From its ports are shipped large quantities of dyewoods.

Jacmel, situated on the southern coast, farther east than

Aquin, is an interesting and prosperous place. M. Fortunate estimates the population at fifty thousand, but in this, as in other instances, he undoubtedly includes the whole outlying commune. The city stands at the extremity of a bay whose waters are very frequently boisterous. The steamers of the English Royal Mail line touch here, both on their outward and homeward voyages. The journey from Port-au-Prince to Jacmel overland is by mule-paths through and over precipitous mountain passes, and between the two cities there is a very winding stream which it is necessary to ford an astonishing number of times, and which, in the rainy season, makes the journey rather disagreeable. Couriers, however, are constantly passing from one city to the other.

In the interior are a number of other considerable and populous towns. They are mostly to the north and east of the capital, though there are some on the western peninsula, the largest of the latter being Léogane (30,000). The most populous of the interior towns is Mirebalais (25,000), about fifteen leagues northeast of Port-au-Prince. Then there are, in the northern half of the interior, Gros Morne (22,000), Plaisance (25,000), Grande Rivière du Nord (22,000), Limbé (16,000), Frou (10,000), Dondon (12,000), Jean Rabel (9000); and to the east of Mirebalais, Las Cahobas (12,000). In the plain of the cul-de-sac is La Croix des Bouquets (20,000), and five or six miles up the mountain-side, near the capital, is the charming summer resort Pétionville (15,000). These figures represent communal populations.

Although these towns and communes, and others not here mentioned, do not always present the well-regulated, pleasing aspect of the cities and towns of the United States or Europe, they nevertheless do suggest important possibilities in the future.

The people of Haiti are almost entirely of African descent, with a few of the mulatto or colored class. The comparatively few whites engaged in business or diplomatic affairs are transients. The fact that the country is a black republic, where emancipated people of this color are trying to work out their own destiny, makes it especially interesting. It is estimated that nine tenths of the people are black and one tenth colored, and that the latter are gradually more and more approaching the black type.

Judged by the standards of the more advanced white races, the Haitians are very backward; but compared with other purely negro countries it must be admitted that they are far above their race in general. Sir Spenser St. John, the present British minister to Mexico, who for over twenty years resided at Port-au-Prince, has described the Haitians from the point of view of a well-bred Englishman.[1] He pictures the country and the people in a state of rapid decadence, and sees no future for them. His descriptions of the voodoo[2] rites, cannibalism, and general social degradation of the people, are indeed appalling, and after reading them, one unacquainted with the history and ethnology of the African races would conclude that Haiti is forever lost; but his conclusions are not borne out by history, and the Haitians, instead of degenerating, are, excepting the Cubans, Porto Ricans, and Barbadians, the only virile and advancing natives of the West Indies.

No exact details concerning the vital statistics are obtainable, and all statements are necessarily estimates. It is thought that no full and accurate census has been taken since 1791. General Jeffrad, who was president from 1859 to 1866, endeavored to enumerate the population, but went only far enough to establish the fact that the footing up would show considerably less than a million. Lately the Roman Catholic clergy have taken a fragmentary census for their own purposes. Their figures show the present population to be somewhat more than a million.

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[1] "Hayti; or, The Black Republic." By Sir Spenser St. John, formerly her Majesty's minister resident and consul-general in Hayti; now her Majesty's special envoy to Mexico (London, 1884).

[2] "Vaudoux" is the proper form of this word, "voodoo" being an American corruption of the same.

Undoubtedly the inhabitants of Haiti were reduced nearly one half by the terrible wars of the revolution. During the struggle all of the whites were either driven out of the country or killed, and some slaves were exported to Cuba and the United States. The prolific negro race has recouped its losses, however, and the population is rapidly increasing. St. John concludes, after investigating all possible sources of information, that the population has probably doubled since 1825, notwithstanding the carelessness of the negro mothers.

The colored people generally reside in the towns, and are a vanishing class. A marked line is drawn against them by the blacks, owing to historic alinement of these two classes. In past political conflicts the mulattos have been usually defeated, and most of them have since segregated in the eastern or San Domingo end of the island. The black hates the mulatto, the mulatto despises the black, and the whites have a contempt for both. As a race, the mulattos who remain have been described as hating their fathers and despising their mothers. In personal appearance the Haitian mulattos are what might be expected from a mixture of a plain race of Europeans with the homeliest of Africans. They are quite different in type from the Spanish mulattos of Cuba, San Domingo, and Porto Rico, or the beautiful mulattos of the French islands. The women are rarely good-looking and never beautiful; as they approach the white type they have long, coarse hair, pretty teeth, small hands, and delicate forms, but their voices, noses, skins, and lower jaws are defective. A pretty girl is the exception.

At the beginning of the revolution the half-breeds constituted less than one tenth of the whole population, and the wars all tended to increase the disparity in favor of the blacks, who formed the vast majority. Hence, since the white element has almost been eliminated, the crossing necessarily resulted in the gradual exclusion of the half-breed type by the full-blooded negro.

In features the black Haitians vary greatly, owing to the variations between the African tribes from which they are descended. Some of the men are tall, with fine open countenances, while others are low in mien and physique. Reclus has noted that if the complexions are mostly very dark, the new environment has remodeled the features, which have become largely assimilated to the European type; African features, such as those of the Wolofs and Serers, are seldom met. Though they have not developed a homogeneous type, as have the natives of Jamaica, Barbados, and Martinique, even St. John admits that as a rule they are far advanced above the African type. There are still many negroes in Haiti who were born in Africa, principally the last cargoes of slaves captured by English cruisers and turned loose among their brethren.

The numerically preponderating and dominant blacks are of many degrees of advancement, ranging from primeval Africans, almost unacquainted with the Caucasian race or habits, who inhabit the back districts, especially of the southern peninsula, to men and women who have been highly educated in Paris. Among these are some of polished manners and cultivated minds; but even these, when they attain power, are inclined to prove themselves visionary and less capable in the administration of public affairs than white men.

It is the general impression that the female sex greatly preponderates among the Haitian negroes. Some estimate the proportion as high as two to one; others say there are three women to one man. St. John estimates that the women constitute three fifths of the population. There is no migration to account for the disproportion of sexes, the movement of population having been toward, instead of away from, the island. In colonial times the males outnumbered the females, but the numerous wars are supposed to have largely exterminated the former.

The language of Haiti is French, which is spoken and written in its purity by the educated. Indeed, it is a saying in Paris that the Haitians are the only foreign people who speak French without an alien accent. This is not surprising, because it is quite the rule for the wealthy and well-to-do citizens to send their sons and daughters to France for their education. This class is debarred from the United States by our prejudice against their color. The lower classes speak a creole patois which almost deserves rank as a separate language, being to the French what the Jamaican dialect is to the English. As in Jamaica, this peculiar dialect abounds in proverbs and quaint sayings.

In their personal traits the Haitians are like the negro race wherever found. They are distinguished for their boastfulness—a habit inherited from both the French and the negro. They are also given to strong drink and licentiousness. They pride themselves on their proficiency in dancing and their ear for music. They have fair military bands in the cities, but throughout the island the favorite instrument is the African tom-tom. In the country the old African dances are still engaged in, including the sensuous bamboula. Wakes are held for the dead, and burials in the country are of a very primitive nature. Like other negroes, the Haitians have a curious habit of talking to themselves. One is often surprised to hear in the bushes along the roadside an apparently extended conversation, which turns out to be the monologue of a solitary darky.

The black man in his family relations is generally kind, although few of the lower orders go through any civil or religious marriage ceremony. In the interior, polygamy is common, and a patriarch may be frequently seen sitting at the door of a house surrounded by huts in which his younger wives reside. Though generally fond of their children, they neglect them to an extent that accounts largely for the high death-rate among the young. Toward the white man the black is usually respectful and cordial. The politeness of the country negro is remarkable, and you hear one ragged fellow addressing another as "Monsieur

Frère" or "Confrère." The town negro is less well-mannered than the peasant. The countrywomen are kind, bright, intelligent, with a natural dignity and refinement quite surprising in people of their habits and situation. The young people can read and write, while several books of poetry in Spanish and one or two illustrated French magazines are found in many of the better homes.

The negroes of the country, especially in the remote districts, preserve nearly all the rites and superstitions of their African ancestors, including dances, music, and witchcraft. In fact, obiism, that queer survival of African witchcraft in the West Indies, prevails here in its most primitive form. It is alleged that it is here secretly accompanied by cannibalistic sacrifices, which the strong arm of the white race has at least eliminated in the other islands and in the United States. St. John has presented some terrible pictures of its prevalence in Haiti.

The conditions which St. John describes are not those of retrogradation, but merely the survivals of customs which the ancestors of these people brought from Africa. Furthermore, others who have lived among them have stated that no more honest, cheerful, and hospitable people exist than the Haitian peasantry. It is asserted that one could travel from end to end of the country with gold coin clinking in his pocket at every step, without losing a penny's value or a night's free lodging, or incurring thereby any personal danger. The great crimes and felonies, such as arson, rape, highway robbery, and murder for gain, are extremely rare.

The Haitian negroes have very peculiar names, owing to the fact that under the French occupation no slaves could be given a name which was used by their masters, so that the latter were driven to curious expedients to find appellations for their dependents, who were called by such names as Cæsar, Lord Byron, and Je-crois-en-Dieu.

The negro as he appears in the large commercial towns is quite a different being from the half-wild peasants of the country, although the latter probably are morally superior to the former, for they have the virtues as well as the vices of the wild races; although their intercourse with their city compatriots has given them a sort of French varnish, yet they are merely an African people transplanted from the parent country. It may be said to their credit that they have shown a wish to acquire little homes from their savings, and that they give many signs of a desire to rise above their racial debasement.

After studying the Haitian people, their institutions, and the criticisms of others upon them, it is our opinion that they represent the most advanced negro government in the world, and as crude as they appear to us, and as far below the standards of the Caucasian race, they have in the face of the bitterest oppression, both from without and within, virtually lifted themselves by their boot-straps out of the depths of African savagery into at least a crude condition of culture, having the outward semblance of civilization. Whatever success they have attained has been solely by their own unaided efforts. The Christian world, which looked with horror on the institution of slavery and cried loudly for its abolition, neglected this self-emancipated people when they most needed its help and aid. Although hardly three decades have passed since our country was inflamed with sentiments demanding the abolition of slavery, and eager to alleviate the condition of the freedmen, we have extended no aid or sympathy to the Haitians, who first lifted the banner of emancipation on American soil. Missionaries from our country sail past the island for more distant shores; noble men and women go to equatorial Africa to enlighten people far below the Haitians in culture, and forces of intelligence which in Haiti might overweigh the delicately balanced conditions of barbarism and civilization in favor of the latter are sent to distant China or India.

Whatever may be said against the Haitians, it should be remembered that these people nearly a century ago initiated the movement which, ending in Brazil in 1889, resulted in driving the institution of slavery from the western hemisphere.

The independence of Haiti, accomplished during the time when slavery was still upheld with all of its horrors in the other West Indies, appeared to the old-school planters in the light of an unnatural event. It inspired among the slave-owners of all nationalities a feeling of horror. The name of Haiti was proscribed on the plantations as belonging to an accursed land, and even to this day the effects of this are so far-reaching that in our own country the name wrongly signifies all that is evil. Yet this black community, now enjoying political freedom and self-government, is alive and growing, and may be counted a potent factor in the ultimate destiny of the West Indies.

Haiti's history did not begin until nearly a century and a half after San Domingo had been established by Spain. In the early years of the seventeenth century many Spaniards, who had made the first skimming of the natural resources of the island, left it for the more tempting fields of Mexico and South America. The bucaneers—French and English—took advantage of their departure and began to prey upon the island. The French particularly assailed the weaker western end, which was then largely a wilderness; they first established stations, then plantations, and finally, in 1640, organized these irregular settlements into a colony under a governor sent from France. Forty-seven years later Spain was forced to acknowledge French sovereignty over the portion of the island where this parasitic hold had been obtained. It is unnecessary to dwell upon the colonial history of Haiti previous to the French Revolution, further than to say that it became what was at that time the finest colony in the world. "Historians," it has been said, "are never weary of enumerating the amount of its products, the great trade, the warehouses filled with sugar, cotton, coffee, indigo, and cocoa; its plains covered with splendid estates; its hillsides dotted with noble houses; a white population, rich, refined, and enjoying life as only the luxurious French society of the old régime could enjoy it." The dark spots, then scarcely noticed, were the immorality of the whites and the ignorant mass of black slavery. The plantation slaves were Africans who retained every savage trait of their native country, including cannibalism, voodooism, and even in many cases the primitive language and dress. The change from Africa to Haiti was but slight. The masters whom the negroes found in the New World were but little better than those of their own race; the damp forests afforded a natural environment very similar to that from which they were drawn; they continued to live in African huts and to eat African foods. The French masters practised, under a guise of civilization, all the cruelties of the African kings whom these people had served at home. Their system of slavery was unsurpassed for severity, subtle cruelty, lasciviousness, and ferocity. Its contrast with the Spanish system in operation in the San Domingo half of the island, where negro slavery existed in a form robbed of half of its terrors, was marked.

The ancient régime also produced a third distinct set of people in Haiti. Miscegenation, openly and boastfully practised, resulted in a large number of mulattos, or colored people. These became numerically important with the passing years, and occupied a peculiar position. Although they mostly became freedmen, they were looked down upon by their white relatives, treated with hatred and contempt, and granted no civil status; and they were hated by the pure blacks. Thus society in Haiti from 1700 to 1776 presented an outward aspect of untold prosperity, but inwardly was composed of elements which, when fired by the Revolution in France, were bound to clash with a force combining the ferocity of the French revolutionists and the savagery of African warfare.

The latent spark was kindled in a peculiar way. When our American colonies revolted against England, the

French commanders who were our allies enlisted the free blacks and mulattos of Haiti, who, according to the English writers, did good service in our War of the Revolution, but when they returned to their own country spread a spirit of disaffection which no ordinances could destroy. Thus it was that "the spirit of '76" kindled the fires which led to the Haitian revolution.

Furthermore, in France, about this time, there were organized societies known as "The Friends of the Blacks," exactly similar to the abolitionist party of the Northern United States prior to the Civil War. These people, moved by a spirit of philanthropy, but ignorant of the laws of sociology, increased the discontent and fanned race hatred among the blacks of Haiti. The whites at this time, who still controlled Haiti,—the discontent of the black and colored population, although apparent, being neither dangerous nor active,—precipitated the crisis by a local autonomist movement, very similar to the events which a century later caused the Cuban rebellion. They were then governed under a colonial system, somewhat analogous to that of the Spanish system in Cuba, in which they had no voice, and they demanded local self-government. Three parties were immediately organized: the white planters, demanding a local self-government, constituted the colonial party; the official classes and their hangers-on, also white, stood for the old régime as the loyalist party; and the free blacks and colored people agitated for civil rights, which had been withheld from them. No idea of independence of France was contemplated. The large and overwhelming mass of black slaves were entirely uninterested in these events. Then the explosion began. The planters, who had hitherto treated their colored offspring with contempt, now called upon them for aid, which was freely given, but afterward rewarded with insult, which created a strong racial hatred between these two elements. The French Assembly in 1791 gave the freedmen and colored people their civil rights, and in all the subsequent struggles they continued loyal to the French government. In 1794 the black slaves, who had hitherto been contented, were given the full liberty, equality, and fraternity of the French republic. The white planters meanwhile continued in insurrection. Then another element was introduced into the strife, which was ultimately to overpower all the others. The royalists called upon the black slaves, who had formerly been meekly quiescent, to help them subdue the planters. Like bloodhounds released from the leash, or a firebrand thrown into a heap of tinder, these savages rushed into the fray, fighting after the manner of their forefathers, killing, burning, ravishing, and destroying. Their whole African nature was given freest play, never to stop until eventually every white man was murdered or driven from Haiti, and the colored class sold as slaves to the Spaniards of San Domingo. In vain other nations of the world tried to stop the fray. England and Spain each sent their forces to subdue the island. Disease helped savagery, and the light of medieval civilization went out in Haiti.

We cannot mention half the incidents of this fearful struggle, but the terrible cruelty and treachery of the whites to the black and colored people of Haiti were hardly less savage than the retaliation of the blacks. The infamous treatment by the French of Toussaint L'Ouverture, who at one time had almost reduced these disloyal elements, is one of the darkest pages of human history. "And yet the conduct of this black was so remarkable as almost to confound those who declare the negro an inferior creature, incapable of rising to genius. History, wearied with dwelling on the petty passions of the other founders of Haitian independence, may well turn to the one grand figure of this cruel war." Born a slave, he acquired only enough education to read a little French and Latin, without mastering the art of writing. When the insurrection broke out he remained faithful to his master, and prevented any destruction on his estate; but ultimately finding that he could not stem the tide, he sent his master's family for safety into Cape Haitien and joined the black loyalists. Having a knowledge of simples, he was first appointed a surgeon, and later rose to leadership, ever trying to direct the course of his unruly subjects into legitimate warfare, and to suppress their savage instincts. He protected to the last the lives of the whites, and was even honored by the English, whose assistance had been sought by France to subdue the fray. "When he once gave his word, he never broke it," it was said; "and he never had any prejudice of color." Even St. John says that "he had a greatness of mind which was really remarkable." Roume described this negro chief as a "philosopher, a legislator, a general, and a good citizen." Rainsford, an English officer, who visited the insurgents disguised as an American, was much struck with Toussaint, and says he "was constrained to admire him as a man, a governor, and a general," who "receives a voluntary respect from every description of his countrymen, which is more than returned by the affability of his behavior and the goodness of his heart."

It should be remembered that this man, a loyal subject of France, was fighting for peace and order, and had it not been for the venality of the French themselves, whose political conditions at home were almost as disturbed as in Haiti, he would have restored it. When he had almost finished his task and proclaimed union and peace in the French colony, pardoning all those who had been led into the revolution against him, keeping his word to his enemies by putting into execution a constitution which was a model of liberality, Bonaparte determined to reëstablish slavery in Haiti, and sent a French army of invasion to carry out this most infamous attempt. Rochambeau, who led the French troops, shot every prisoner that fell into his hands, justifying retaliation by the Haitians. He even brought to the siege two hundred Cuban bloodhounds, that were fed on negro flesh, it is said, to make them the more savage. Toussaint, ever loyal to the authority of his country, treated with the French commander-in-chief and retired to his estate, where he was subsequently arrested in circumstances of the greatest treachery, bound with ropes, and carried prisoner to France. The indignities to which he was subjected can hardly be believed as the acts of French officers who broke their plighted word. In France he was separated from his family and cast into a prison, where he died from cold and neglect, the suspicion being justified that the close of his illustrious life was intentionally hastened.

Thus ended the career of a man of whom the Marquis d'Hermonas said that "God in this terrestrial globe could not commune with a purer spirit." "The one mistake of his life appears to have been his refusal, when urged to do so by England, to declare the independence of all Haiti. Had he accepted the English proposals and entered into a treaty with the Americans, it is not likely that Bonaparte would have ever attempted an expedition against him, and the history of Haiti might have been happier."

With the exile of Toussaint ended the influence of the white race in Haiti. A most fearful epidemic of yellow fever fell upon the French army and almost annihilated it. Forty thousand of them perished in 1802–03. The Haitians saw their opportunity, and aroused their countrymen to expel the weak remnants of the French army. The foreign fleets left Haiti's shores to engage in their own warfares. Rochambeau, pushed by an army of thirty thousand blacks, pinched by hunger, and having no hope of reinforcements, surrendered to the English and embarked for Europe, leaving an independent country to the victorious blacks.

Thus ended in 1804, after fifteen years of horrible warfare, one of the darkest chapters in the history of the West Indies, and colonial Haiti was lost to civilization. The Haitian negroes have since been left to work out their own destinies. At first they set up an empire after the Napoleonic example in France. Then followed monarchies, constitutional presidencies, and even a second empire in 1849, sometimes accompanied by union with San Domingo. In 1843 the revolutionary alliance with San Domingo was broken, and since that day the republic of Haiti has continued, marked by many revolutions, but gradually becoming more and more quiet.

No Haitian of intelligence now thinks it possible to keep his country in isolation, or out of line in the onward march of the nations. With this opinion prevalent and other favorable forces at work, it may be hoped that order and development will obtain in Haiti. The tendency of things there is clearly against irregular changes of government.

The Haitian government has made endeavors to increase the population by inviting immigration from abroad of persons of African origin, especially the negroes of the United States. Under the presidency of General Boyer, in 1824, thousands of these people settled in different parts of the country; many of them died from the climate; a few, however, became prosperous, and many of their descendants are still living, and have preserved the love of the American Union and their knowledge of the English language.

During our Civil War President Jeffrad offered liberal terms to negro settlers from the United States. Their passages were to be paid, lands placed at their disposal, and they were to be housed and cared for during a reasonable period, and to be exempt from military service. Freedmen were even shipped by our national government from Norfolk, but the experiment was a failure.

As a rule, negroes become attached to the people and customs of the first Caucasian lands of their adoption. Negroes from the United States, differing from the Haitians in speech, religion, and usages, generally keep aloof and cannot attach themselves to the French language and entirely different habits of the Haitian blacks. During the past few years a strong current of blacks has been flowing into Haiti from the neighboring islands, including Jamaica.

CHAPTER XXVI

THE BAHAMAS

General geographic features. Dissimilarity to other West Indian Islands. Products and population. Poverty and decadence of the people. Varied race character of the blacks.

HAVING described the Great Antilles except the Virgin Islands, let us now turn to the other islands of the West Indies, most of which occur along an immense semicircular stretch, over a thousand miles in length, between eastern Florida and the mouth of the Orinoco. These islands, with the exception of the Virgin group, just east of Porto Rico, are entirely different in their physiographic features and natural resources from the Great Antilles, and in many cases from one another.

Before reading individual descriptions of them, it is well to take a map and study closely their succession and relative position, and endeavor to fix in our minds a preliminary classification. The first striking fact is their subdivision into two grand groups lying north and south of the longitude of the Great Antillean trend. The mere study of the map, however, fails to show the great physical differences which separate these groups still more distinctly. In fact, they differ from one another in every aspect—geologic structure, vegetation, productivity, climate, and fitness for human habitation.

The northern group, between Florida and the east end of

CLIFFS OF ELEUTHERA ISLAND

WATLINGS ISLAND

UNITED STATES CONSUL'S HOUSE, NASSAU

STREET SCENE, NASSAU

BAHAMAS

Santo Domingo, constitutes the Bahamas. This lies entirely within the Atlantic Ocean, having a trend parallel with that of the Antilles. The other group, stretching from Porto Rico southward, popularly known as the Lesser Antilles, lies between the Atlantic and the Caribbean, and has no affinities or relations with the Bahamas.

Few maps give the same title to the southern islands. By some they are called collectively the Lesser Antilles, by others the Windward Islands; by still others the Caribbees. On English maps the northern half of the chain is marked the Leeward Islands and the southern half the Windward. For the present let us speak of the whole as the Lesser Antilles, reserving for a later page their more accurate classification, and first disposing of the Bahamas.

The Bahama group, which stretches through a total distance of 780 miles, includes over 690 islands and islets and 2387 rocks, whose total number can hardly be less than 3200, and embraces an area of 5600 square miles. The aggregate land surface of all these islands is larger than that of Porto Rico. In aspect the Bahamas are more like the land of our Floridian coast and keys than any of the other West Indies, yet they are so entirely unlike the latter that the traveler who, after visiting them, imagines that he has seen the West Indies is sadly mistaken.

The Bahamas are not composite lands like the Antilles, or volcanic summits like the Caribbees, or even of coral reef-rock origin, as many believe; but all of them, according to the researches of Professor A. Agassiz, are wind-blown piles of shell and coral sand,—once much more extensive than now,—whose areas have been restricted by a general regional subsidence of some three hundred feet, so that much of their former surface now occurs as shallow banks beneath the water. This sand is not the brown silicious material with which we are familiar, but white shell-sand, the comminuted particles of shells and corals such as still inhabit the waters around these islands, which give to them a glaring white aspect in the setting of blue waters and crystalline atmosphere.

The islands are merely the exposed tips of a great submerged ridge, having an outline and configuration which would be crudely comparable to the island of Cuba if the latter were so submerged that its highest points merely reached the surface. In fact, the trend and character of this bank are such as to suggest that it might possibly represent one of the lost Antilles. The bank is more of a peninsula than an island, projecting as it does southeastward from the narrow submerged shelf of the Atlantic coast—a kind of submarine extension of eastern Florida, as it were.

The shallow waters around the Bahamas are beautiful. Some of the deeper basins, encircled by reefs, are called sea-gardens, from the lovely growth of polyps and marine algæ which can be seen beneath the water. Crocodiles and manatees are also found near some of the shores.

There are several groups of these islands, the largest of which, constituting fully one half the area, and situated to the westward, is known as the Great Bahama Bank, from the vast shallow platform from which it rises above the water. This group comprises Andros, the largest of the Bahamas, at its northern extremity, Green Key, New Providence, Eleuthera, Watlings, and Long islands. To the east there are four smaller groups—the Fortune island group, the Caicos or Turks island group, and (just north of Samana, San Domingo) the Silver and Navidad banks. Great Inagua, situated near the Windward Passage, opposite the converging ends of Cuba and Santo Domingo, is a kind of outlier to the south of the main chain.

Some of these islands, like Navidad, Silver, and Mouchoir banks, barely reach the surface of the water; others are similar banks which project well above it; while others still are compounds of the two types.

From the sea the Bahamas appear as low stretches of green land bordered by a strip of white beach or surf, with here and there a few villages, built of American lumber.

Their topography consists of low rounded hills—typical sand-dunes, rising to no great height, which are usually more rugged and numerous on the leeward side, where low bluffs also occur. Some of these bluffs are picturesque, with great boulders surrounding them which have been cast up by the sea, like the rocks called the Cow and Bull on New Providence, and the bluffs of Fortune Island, or with low cliffs with circular holes worn through them, like the Glass Window of Eleuthera and the Hole in the Wall of Great Abaco.

With the exception of Andros, the Bahamas are all destitute of springs or running waters. Andros has a few brooks and marshy streams. As in Yucatan, the rain-water collects in underground reservoirs.

The flora is tropical, but quite different in general assemblage from that of the Antilles, being more closely related to that of the American coast. A majority of the islands are covered by a stunted growth, largely mangrove. Only a few possess forests; the pine of our southern coast, mixed with the tropical mahogany, covers some of the western islands.

Like the Antilles, the Bahamas are almost destitute of native mammals. A species of opossum occurs in one of the western islands near the American shore. Bird life is abundant, however, and the adjacent waters are rich in turtles, fishes, and beautiful mollusks.

Lying as they do in the Gulf Stream at the border of the temperate and torrid zones, the climate of the Bahamas is agreeable and healthful, but subject to greater extremes of heat and cold than the other West Indies. In the winter months from November to May the temperature varies from 60° to 75°, and the remainder of the year, constituting the warm season, from 75° to 85°. The general flatness allows the full benefit of the sea-breezes, which, with the ocean views, may be considered the most valuable features of these islands.

The Bahamas are historically interesting because of their association with the first landfall of Columbus, their former relation with the American colonies, and the part they played as a place of refuge for the Tory emigrants during our War of Independence. The aborigines were hunted and enslaved during the first century of Spanish conquest, being especially desired for the pearl-fisheries of Panama, on account of their superior skill as divers. The archipelago was neglected for over a century, but when the coast of Carolina was colonized the islands were regarded as its natural dependency, and later became the home of adventurers of all sorts, who lived by wrecking and bucaneering, making New Providence their capital.

The islands were permanently occupied by British troops for the first time in 1718, and since then have been under the flag of Great Britain. The government, with its seat at Nassau, consists of a governor and executive council; there is also a legislative council presided over by the governor, and a representative assembly of twenty-nine members elected by suffrage. So far as law, order, and educational opportunities are concerned, the administration has the usual excellence of British colonial government, but likewise accompanied by high taxation and expenditure. The revenues of 1895 amounted to $296,067, and the expenditures to $295,022.50.

Industrially and commercially the Bahamas are in straits. The soil is not rich, but is suitable for the cultivation of small fruits, vegetables, pineapples, oranges, and cocoanuts. Their only market, the United States, is embargoed by our tariff laws. The government has tried to encourage the cultivation of the sisal-fiber plant; the shipments have as yet been small, however, as the plantations are now only reaching the productive stage. Abaco is the chief center of the industry. Except in the Caicos and Turks groups, where salt is found, most of the inhabitants earn their living from the products of the sea, such as sponges, turtles, shells, pearls, ambergris, and wreckage. Sponge-fishing is extensively carried on, employing many people, although its total product does not aggregate more than $300,000 a year.

The total exports amounted to $809,733 in 1896. The imports from the United Kingdom were $181,608, and from the United States $635,113, out of a total of $819,760. So far as commerce goes the Bahamas are an American possession, for we take all that they produce and sell to them most of what they consume.

The Bahamas have regular mail connection with New York and Florida, and in the winter season steamers run to Palm Beach. A subsidized steamer conveys passengers among the different islands. Scrutton's line runs directly to London. Nearly all the people own small sailing-vessels which ply between the islands. There is cable connection between Nassau and Florida, and Nassau and the Bermudas, and thence to Halifax.

The population of the Bahamas is a decadent one; there is neither immigration nor inducement for immigration, except for those who wish to enjoy the salubrity of the climate. Only thirty-one of the islands were inhabited in 1890, with a total population of fifty-four thousand. The people, though not in distress, are all poor in worldly goods. The whites are few in number, and are not noted for their industry. Most of the Bahama people are negroes, descendants of former slaves, and these are of many peculiar types and kinds. The isolation of each island has preserved or produced distinct characteristics. Powles has said that these "conchs," as they are called, appear still to be divided into various groups which retain the tribal peculiarities of their African descent, each tribe annually electing its own queen and recognizing her authority. Furthermore, they vary in language according to that of the masters who introduced them. Most of them speak English; some have a decided Scotch dialect, while it is alleged that upon one key the Irish dialect prevails. Some of these negroes, notably the Fortune Islanders, are excellent sailors, and are eagerly sought by the American steamers on account of the superiority of their industry to that of the other West Indian blacks.

The principal inhabited islands are New Providence, Abaco, Harbor Island, Eleuthera, Mayaguana, Ragged Island, Rum Key, Exuma, Long Island, Long Key, and the Biminis, all ports of entry, and the Great Bahama, Crooked Island, Acklin Island, Cat Island and Watlings Island, Berry Island, Andros Islands, and Turks and Caicos islands.

New Providence, having fifteen thousand inhabitants, contains over one fourth the people of the entire group. On this island is situated Nassau, the capital and only city of importance in the Bahamas. Nassau is a pretty place, and is a favorite resort of American tourists, who reach it from the Floridian coast. It has a population of ten thousand people. Flowers and plants and neat English houses give it a very attractive appearance. Its shops are good, and it has a large and well-conducted American hotel, which is principally supported by American visitors. It was notable during our Civil War as the headquarters of the blockade-runners, some of whom made great fortunes.

Great Abaco is one of the most thickly peopled of the islands. Its population in 1881 was 3610. These people are mostly whites, and are interesting to us in that they are descendants of American Tories, some of the best families of colonial times. In order to preserve the purity of the race, however, they have always intermarried within the same family circle, and show a marked physical degeneration.

The Andros Islands are the largest of the entire group, and represent nearly a third of the dry land of the archipelago. They are, moreover, the most densely wooded of the Bahamas.

Harbor Island is the most densely populated, having two thousand inhabitants concentrated in a space about two miles in extent, who are descended from the old buccaneers and have a communal land system.

Eleuthera, which takes its name from *Eleuthera croton*, a plant formerly much used in medicine, has but few inhabitants. Cat Island, so named from the domestic animal, which has run wild, is about one hundred and sixty-five square miles in extent. It has a population of four thousand people, descendants of revolutionary Tories. Watlings Island and Rum Key are inhabited by small communities.

East of Watlings Island there is a long, narrow strait through which the Windward Passage commerce threads its way. On the east of this is an archipelago composed of the three islands called Fortune, Crooked, and Acklin, which really constitute a single island, being divided by shallow channels fordable at low water. Fortune Island is a port of call, touched by steamers plying between New York and the West Indies.

Still to the eastward the only islands of importance are the Turks and Caicos groups, which are attached to Jamaica for administrative purposes. They consist of Grand Turk, Salt Key, and a few uninhabited keys. Grand Turk is only seven miles long and a mile and a half wide. Salt Key is nine miles long.

Turks Island was made famous as a port of call by the sailing-masters who frequented it in former years. The principal features of interest and revenue are the salt-ponds, aggregating five hundred and ninety-three acres, each acre of which is capable of yielding about four thousand bushels of salt per annum, dependent upon the weather. A million and a half bushels are annually shipped to the United States and to Halifax, where it is principally used in the codfish industry. The total export is valued at $156,750. Sponges are also extensively gathered and shipped. Here also is the home of the conch from which is obtained the valuable pink pearl. There is no water fit for human consumption except rain-water, for which seven public tanks have been constructed on Turks Island.

The total population of the group is fifty-seven hundred people, about one half of whom are blacks, one third colored, and one sixth white. The negroes are largely the descendants of slaves brought over by Tory refugees from Georgia. The latter constructed substantial stone houses and made good roads, traces of which still remain. Before these came, the islands were settled by immigrants from Bermuda in 1670.

Turks and Caicos islands were separated politically from the Bahamas in 1848, and made a dependency of Jamaica, administered, however, by a commissioner as chief executive officer, who is president of the legislative board. The governor of Jamaica has supervisory power over the local government, and is the medium of communication between the commissioner and the Colonial Office. Besides this, the legislature of Jamaica can pass laws applying to the islands, and certain classes of their judicial cases must be dealt with by the supreme court of Jamaica.

Grand Turk is the capital, and the commissioner resides there. The town has been described as neat, clean, and without the appearance of poverty, although the inhabitants complain of ruin. It contains several stores, a good market-place, a respectable hotel, and a free library and reading-room. The library is in a building erected in honor of her Majesty's jubilee.

The revenues are derived almost entirely from import duties, the only direct taxes being one on dogs. A royalty is paid on the shipment of salt.

CHAPTER XXVII

THE LESSER ANTILLES

Natural beauty of the islands. Distribution among many governments. Differentiation into four types.

LET us now examine the chain of islands which sweeps in a gentle curve from the eastern end of Porto Rico around the Caribbean to the northern coast of South America—the most beautiful and ideal of the tropical lands, many of them veritable fairy islands, where the magic hand of nature has produced the most esthetic and beautiful products of her handiwork, even if ruthless man has done much to despoil them.

The beauties of the Great Antilles and the charms of all tropical lands about which poets have written fade before these. Their histories have been as broken and disturbed as their topography, and no less turbid than the wind-driven waves of the Atlantic which beat against their windward shores, and as cruel as the hurricanes, earthquakes, and volcanic outbursts which from time to time have destroyed the works of man. Pirates and bucaneers have preyed upon their civilization, and great nations fighting for these gems of the sea have successively seized them so often that each has had a history more complicated than that which marks our national existence. Here, too, the institution of African slavery was introduced, to grow until the Caucasian races were gradually crowded out, while each island of importance has successively become great in wealth from sugar-culture, and finally impoverished by the same industry, until all now present pitiful spectacles of decaying civilization, these fair lands being gradually abandoned to the erstwhile African bondmen.

Here are remarkable mixtures and contrasts of political condition, and economic conditions especially interesting in these days when the world is attempting similarly to subdivide the Orient.

Although the largest of these islands hardly exceeds in area an average American county, each assumes the individuality and political importance of an independent empire. By travelers sailing among them they are commonly spoken of as the French, English, Dutch, Danish, or Spanish islands. The British possessions are primarily segregated at the ends of the chain, constituting several distinct colonial governments, especially the Leeward Islands to the north and the Windward Islands to the south. Besides these the former French islands of Dominica and St. Lucia, near the center of the chain, are important British possessions.

The French group includes the two largest islands of the chain, Guadeloupe and Martinique; with these, however, are Dominica and St. Lucia, which passed into British control at the beginning of the present century, although the French language continues to be that of the common people.

The Dutch possessions are islands near the northern end, attached, for administrative purposes, to Curaçao, on the other side of the Caribbean. The two Danish islands are also small affairs near the northern end of the group, almost abandoned by the country that owns them.

The historic interest of these islands is great. They have been in previous centuries the chief battle-ground of European nations in their attempts to gain supremacy in the New World. The conflicts between Frenchman, Spaniard, Dane, and Hollander are in themselves enough to fill many volumes, while here the bucaneers flourished beyond the wildest fancy of those who seek pleasure in the reading of piratic atrocities. Some of these islands, like Barbados and the Bahamas, are interesting to the student of early American colonial history because of the close blood-relationship of their early settlers with those of our own country, as well as of a similarity in colonial institutions. The student of slavery and the ethnology of the black race will also find in these islands a fruitful and interesting field. The student of political economy will find here instructive lessons growing out of their dependence upon the single industry of sugar, while the student of politics will find the administration of the various colonial governments a subject unique in interest.

Sugar is everywhere the principal subject of conversation and interest. One is astounded by the apparently unbreakable fetters with which its culture has bound the inhabitants. The dependence of the Indian of the North American plain upon the buffalo, or of the Eskimo upon the seal and walrus, was no greater than that of these people upon sugar. The rise and fall in its price, the revolution of methods of its extraction from the cane, or of its refinement, have affected their whole lives, at one time enriching them and at others reducing them to the most pitiful poverty.

Viewed from the deck of the passing steamer, all the Lesser Antilles are beautiful beyond description. Rising as they mostly do in wooded summits from the azure sea, they appear to be the acme of all that is picturesque, lovely, and restful. Beautiful as these islands are in nature, especially in perspective, their charm is diminished when the traveler steps on shore and comes in contact with the poverty of the inhabitants. This does not impress one by any outward aspect of actual want and suffering, but by the general appearance of decay. Everywhere one sees in the well-constructed buildings and plantations, once inhabited by the wealthy and hospitable creoles, reminders of the former conditions of prosperity; yet these no longer exhibit the signs of wealth which made the islands famous. By their owners the traveler will be treated with hospitality and kindness, the people always welcoming an intelligent stranger; but the latter can have only a feeling of pity as he sees their struggles against an inevitable fate, while they endeavor to maintain the outward semblance and graces of their former lavish hospitality. The hotel accommodations, at least, have the merit of cleanliness, and the food is the best that the country affords.

Before proceeding to describe the individual islands, it is well to consult the map again; for the Lesser Antilles are of at least four distinct types, each differing from the others in physical aspects, geologic origin, and industrial possibilities. These groups may be termed the Virgin, the Caribbee, the South American, and the Barbadian, each of which will now be described in turn.

CHAPTER XXVIII

THE VIRGIN ISLANDS AND ST. CROIX

Their Antillean character and position. Geological character. Various kinds of government. St. Thomas. St. John. Virgin Gorda. Anegada. St. Croix.

A HYDROGRAPHIC chart of the West Indies, such as sailors use, shows a long, shallow bank, hardly one hundred fathoms deep, extending eastward from the end of Porto Rico like a crescent curving to the northward, from which rise numerous small islands of the Virgin group. This bank is the eastward continuation of the same shoal or platform that surrounds all the Great Antilles, and the islands are Antillean in their structure and origin, and are the summits of the submerged eastern end of the Antillean mountain chain. On the south and east this bank is terminated by the Anegada Passage, which separates the Virgins from the Caribbean chain by a narrow marine strait nearly three thousand fathoms deep.

The Virgin Islands were discovered by Columbus on St. Ursula's day, and so named by him because they extended in a long procession like that of the eleven thousand virgins of the Christian legend. Most of the islands are small, and some of them precipitous and hardly habitable. Proceeding eastward from Porto Rico, the largest of them are Crab Island, Culebra, St. Thomas, St. John, Tortola, Virgin Gorda, and Anegada. Besides these there are more than fifty smaller islands or keys—Scrub Island, Beef

Island, Old Jerusalem, Round Rock, Ginger, Coopers, Salt, Peters, Norman Islands, etc.

They are all mountainous, projecting above the water like tips of submerged peaks, which they really are. They are very rugged, and are beautiful when viewed from the sea. The upper outline of hills of the larger islands, with its multitudinous little coves and dry gullies, reminded Kingsley of the Auvergne Mountains. "Their water-line has been exposed to the gnawing of the sea at the present level, and everywhere the cliffs are freshly broken, toppling down in dust and boulders, and leaving detached stacks and skerries. Most beautiful meanwhile are the winding channels of blue water, like landlocked lakes, which part the Virgins from each other; and beautiful the white triangular sails of the canoe-rigged craft which beat up and down them through strong currents and cockling seas. The clear air, the still soft outline, the rich yet delicate coloring, stir up a sense of purity and freshness, and peace and cheerfulness, such as is stirred up by certain views of the Mediterranean and its shores."

The total area of all the islands hardly aggregates two hundred square miles, the largest of them, St. Thomas, possessing only thirty-seven square miles. The current impression that these islands, as a whole, are either of volcanic or coral-reef origin, is a mistake. Traces of marine volcanism are less apparent than in New England, while the coral rocks are only an attenuated fringe added in recent geologic time. They are all of the same general geologic composition as the Great Antilles, consisting of a foundation of rocks of suspected Paleozoic origin, covered by great masses of Cretaceous and Tertiary conglomerate and clay, derived from the now vanished geologic Atlantis, which in turn are veneered by the mantle of oceanic chalky-white limestones, and these fringed by a border of coral-reef rock. Penetrating the older rocks are dikes of ancient volcanic material.

The smaller islets are marked by stretches of coral and shell-sand overgrown by cocoloba and cactus, largely prickly-pear. They are all more or less densely covered by vegetation similar to that of all the Lesser Antilles. The trees on the windward sides are rough and shaggy, and are bent downward against the land by the wind. On the leeward or sheltered sides, palms, trees, shrubs, and flowers grow in profusion, while aloes, cacti, and thorny shrubs occur in the more arid spots.

Even this small group of islands is divided among various nationalities, much to their detriment. Crab and Culebra, which have already been described under the head of Porto Rico, are Spanish. The Danes own the islands of St. Thomas and St. John. Anegada, Virgin Gorda, Tortola, and a number of smaller islets belong to Great Britain.

The English Virgins constitute a crown colony of Great Britain, and are ruled by a commissioner who is responsible to the governor of the Leeward Islands colony, which has its capital at Antigua. They have a total area of only ninety-three square miles and a decaying population, which numbered 8506 in 1881, and 8340 in 1891. Their inhabitants are what Great Britain graciously terms peasant proprietors—negroes supporting themselves by the cultivation of small crops of yams and other foods upon which the white man could not live, and by fishing.

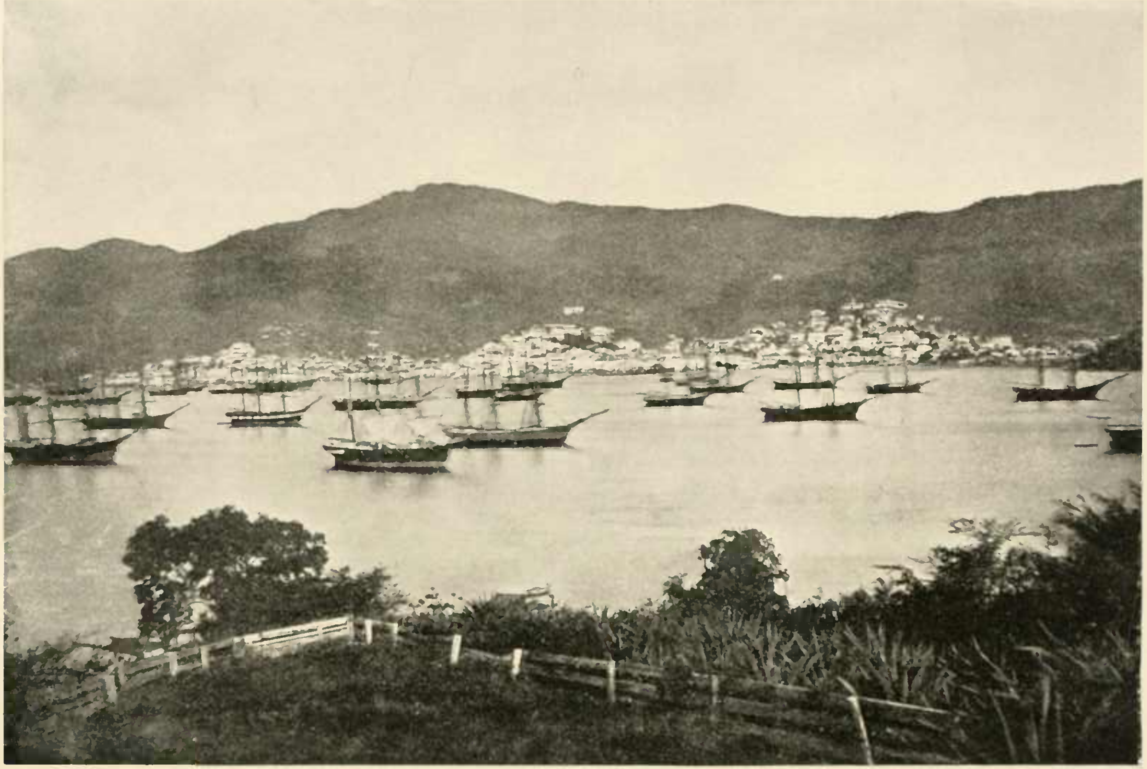
In all the islands the majority of the population is composed of negroes, above whom are the white colonial officials of the government, who constitute a kind of local aristocracy. The negroes, as a rule, are thoroughly content and orderly, being allowed a sufficient degree of democracy in the local government to keep them loyal. Besides these two classes there are a few white creole planters, the remnants of a vanishing stock which was once the chief element of the population, but has gradually migrated to more prosperous lands, leaving behind weak and impoverished descendants—excellent people, who are to be pitied.

These small islands are now unimportant. The only one which is at all conspicuous is St. Thomas, which was formerly the commercial metropolis of the West Indies, and which still ranks next, among the Lesser Antilles, to Bridgetown, Barbados, and Port of Spain, Trinidad. Its capital, which all the world calls St. Thomas, is officially known as Charlotte Amalia. It has a population of over ten thousand, and is the seat of government of the Danish West Indian Islands.

St. Thomas is built on three hills running in a parallel line on the northern or inner extremity of the bay, with still higher hills beyond. The many-colored houses and the vegetation make a very pretty picture, especially when viewed from the sea. Kingsley described the town as "a collection of scarlet and purple roofs piled up among orange-trees, at the foot of hills some eight hundred feet high; a veritable Dutch oven for cooking fever in, with as veritable a dripping-pan for the poison when concocted in the tideless basin below the town, as ever man invented. The beach of St. Thomas is lined by the usual tropical fringe of cocoanut-trees, though here they look more sad and shabby than elsewhere. Above these, on the cliffs, are tall aloes, gray-blue cerei like huge branching candelabra, and bushes, the foliage of which is utterly unlike anything of the temperate climes, while still higher the bright deep green of patches of guinea-grass and a few fruit-trees may be seen around some island cottage."

The city is lighted with gas, possesses a theater, two club-houses, and several hotels, as well as a slip on which small vessels can be repaired. The principal street follows the shore-line; behind it are tiers of houses covering the slopes of the hill which rises from the harbor. The highest point of the island, behind the city, is 1560 feet, and it affords a beautiful view of the surrounding waters, with their many islands.

The harbor is a nearly circular basin on the south side, easy of access and sheltered from the trade-winds. It has been visited by terrible hurricanes, especially in 1819, 1837,



BAY AND CITY OF ST. THOMAS

and 1867. For the accommodation of larger ships there is a floating dock belonging to the Royal Mail Steamship Company, which is much resorted to for the docking of steamers. The same company has also a large stock of coal, and a factory fitted up with the necessary appliances for keeping its fleet in repair. The Hamburg-American Packet Company makes St. Thomas its West India headquarters and coaling-station, and many American and European steamers stop there. It is still the terminus of the northern route of the Royal Mail auxiliary steamers, which branch out in every direction from Barbados. Steamers also run at frequent intervals from St. Thomas to Porto Rico, thirty-eight miles to the westward; also to San Domingo and Haiti. The island is in telegraphic communication with Europe and the principal islands in the West Indies, and is the headquarters of the West India and Panama Telegraph Company, which connects with the United States.

Nearly every language is spoken in St. Thomas, English predominating. The official language is Danish, but Spanish, Dutch, and French are also spoken. Trollope describes St. Thomas as a "niggery, Hispaño, Dano, Yankee Doodle sort of place, with a general flavor of sherry-cobbler."

St. Thomas has been declining for many years, for various reasons. The supplanting of sailing-ships by steamers was the first great blow; then the construction of cables was detrimental to the business of the place as an intermediary port. Between 1870 and 1880 trade took wings, the old commercial importance of the island disappeared, and Denmark tried to sell it to the United States, offering it and St. John for $4,750,000. The inhabitants, sharing the universal desire of the West Indian people for annexation to the United States, gave their unanimous consent to the arrangement, but our government declined to ratify the purchase. As a final blow, the Royal Mail Steamship Company, the great English distributing line, which is so important a factor in the West Indies, removed its headquarters to Barbados. It is estimated that this removal caused a loss of many thousand pounds a year to the island.

The production of sugar in St. Thomas has been falling off since the abolition of slavery in 1848, and it is here that the traveler, proceeding southward through the Caribbee Islands, sees upon landing those ever-present signs of natural decay, the abandoned sugar-houses and -mills, though nature conceals the old cane-fields by rapidly spreading over them her mantle of tropical vegetation. The cultivation of aloes and fibrous plants is being tried, but not with any particular prospect of success. There are also plantations of divi-divi trees and the usual tropical fruits.

The healthfulness of the place has been greatly improved of late years by cutting a channel which gives another outlet from its harbor to the sea, thereby creating currents which remove the filth, an experiment that suggests the possibilities of Havana in the same line.

St. John, which also belongs to the Danes, lies almost within gunshot of St. Thomas, to the east, and is very similar to the latter in general aspects; but as it is away from the paths of ocean trade, it is obliged to live upon its own meager internal resources. It has a port called Coral Bay, which is said to be one of the best harbors of refuge in the Antilles. The capital of the island is an obscure village on the northern side.

Tortola succeeds St. John to the northeast. It is traversed by a central ridge which culminates in a peak eighteen hundred feet high. It is the largest of the British Virgins, and presents a very rocky and precipitous configuration. The absence of forests on the mountains contributes to its rugged appearance. The island is eighteen miles from east to west, and seven from north to south. It is very poorly watered, and abounds in waste lands and pasturage. The soil is not good enough for sugar, though cane has been grown there. This island was a great stronghold of the bucaneers, but afterward fell into the hands of the peaceful Quakers, who freed the slaves and made them grants of land. The emancipated negroes then deserted the island, and many of the impoverished whites quickly followed them, so that the population fell from eleven thousand to four thousand. Road Town, on the south side, is the capital of the English Virgin Islands Presidency.

Virgin Gorda, or Spanish Town Island, also British, is nearly eight miles long, of irregular shape, and very narrow at both ends. It contains fifty-two thousand acres, and has a rocky coast; it is arid, almost uninhabited, and nearly surrounded by dangerous reefs. Its former considerable plantations are now largely abandoned.

Extending northward from Virgin Gorda are a number of small, uninhabited, rocky islets, which constitute a menace to navigation. Anegada, or Drown Island, the most northeasterly of the group, about twelve miles long and two miles wide, is surrounded by the famous Horseshoe Reef. The island is low, and the sea often breaks over it. The few inhabitants are principally engaged in raising goats, sheep, and cattle. The revenue of the island is very small, and the trade is almost exclusively with St. Thomas and St. Croix.

It has been said that as a great work of nature the Virgin Islands seem full of intelligent design; but as cultivable lands they do not, in their present condition, show that much success has attended the efforts of man. The white men who formerly inhabited them are rapidly leaving, and the blacks are following them, though more slowly.

St. Croix, or Santa Cruz, lies to the southeast of Porto Rico, and due south of the Virgin Islands, isolated from the other islands, but more Antillean than Caribbean in its geognostic aspects. Its area is seventy-four square miles. It has a high and sharp configuration, with deep cliffs near the shore and many low hills in the interior, all covered with beautiful vegetation. Hearn has told of the "wonderful variation of foliage color that meets the eye." "Gold-greens, sap-greens, bluish and metallic greens of many tints, reddish greens, yellowish greens. The cane-fields are broad sheets of beautiful gold-green, and nearly as bright are the masses of pomme-cannelle frondescence, the groves of lemon and orange; while tamarinds and mahoganies are heavily somber. Everywhere palm-crests soar above the wood-lines and tremble with a metallic shimmering in the blue light."

The island is Denmark's largest American possession, but the nineteen thousand inhabitants, mostly blacks, speak English, and give no signs of their nationality beyond a little garrison and its flag.

There are many magnificent drives through avenues of cocoa-palms, tamarind-trees, and ceibas. Frangipani, bananas, cacti, and jasmine are cultivated everywhere. The sugar-planters have endeavored to live by adopting new methods and machinery, and are better off than those of the English islands; but there are many abandoned plantations and buildings going to decay. Several New England ship-captains have become planters on the island.

The temperature ranges from 66° to 82°. The lower temperature is considered exceedingly cold by the inhabitants, and is usually the southern fringe of the extreme cold waves which occasionally sweep the eastern United States.

There are two towns, Frederiksted and Christiansted, which are generally called West End and Basse End respectively. Frederiksted, when viewed from the sea, looks like a beautiful Spanish town, with Romanesque piazzas, churches, and many-arched buildings peeping through breaks in the breadfruit-, mango-, tamarind-, and palm-trees; but on entering the streets you find yourself in a crumbling town with dilapidated, two-story buildings, from which the stucco or paint is falling. The fissures in the walls and the tumbling roofs may be largely due to the fact that the city was sacked by the negroes, who revolted in 1878. A broad paved square is the market-place, where the darkies stand or squat upon the ground, with their wares piled at their feet. The city is full of short, thick-set women carrying bundles upon their heads and wearing bright cottonade stuffs, chatting loudly in an English jargon.

CHAPTER XXIX

THE CARIBBEE ISLANDS

Classification into volcanic and calcareous subgroups. The Anguillan subgroup. Sombrero. Anguilla. St. Barts. St. Martin. Barbuda. Antigua.

STRETCHING like the piers of a bridge across the entrance to the Caribbean Sea, from the Anegada Passage to Trinidad, is a chain of beautiful lands which may be called the Caribbee Islands. They rise from a narrow submarine bank, like the Antilles, but have a north-and-south trend, directly at right angles to that of the latter, and separated therefrom by the deep Anegada Passage, each chain probably representing the survival of what were great islands in former geologic times.

Primarily the Caribbees are composed of a long chain of old volcanic islands, upon the summits of some of which the volcanic fires are still somnolent, bordered on the windward or Atlantic side of the north end of the quadrant by great banks of white calcareous rocks which have been elevated from the sea as a kind of shelf or appendage to the main volcanic chain. The main chain of islands will be called the Caribbees, and the calcareous outliers the Anguillan subgroup.

These calcareous islands occur in parallel alinement along the northeast side of the main Caribbean chain, extending from Sombrero to Maria Galante inclusive. They consist of the islands of Sombrero, Anguilla, St. Bartholomew, St. Martin, Barbuda, Antigua (in part), the Grande-Terre of Guadeloupe, and Maria Galante. Inasmuch as these are of secondary importance to the main chain, they will be but briefly discussed.

Sombrero, the most northern of the islands, is so named because at a distance it looks like a grayish hat floating on the sea. It is a small and barren mass of calcareous rock,—old beach debris elevated into land,—and was considered of no value until Americans developed extensive phosphate deposits upon it, which are now nearly exhausted. Near by is a cluster of rocks called the Dogs, from their resemblance to a pack of hounds in full chase over the waves.

Anguilla is fourteen miles long and three miles broad. It is a long, low, treeless, and unfruitful area. Of its population of twenty-five hundred less than one hundred are white. Several small outlying islands are associated with Anguilla in forming a British colony, which is under the general government of St. Kitts. Pasturage is the principal resource. The people raise small ponies that graze on the salt-grass along the beach. Some phosphate of lime, salt, a little tobacco, corn, and cattle are produced.

St. Bartholomew, familiarly called St. Barts, is on the southern extremity of a bank from which rise also Anguilla and St. Martin. It is a narrow island, only eight square miles in area, the whole surface of which is mountainous, culminating in a limestone hill one thousand feet high. The place has no fresh water, although many brackish lagoons occur along the coast. The geological formations of the island, except the fringe of recent rocks, are mostly old Tertiary limestones. The surface is a very stony soil composed of rock fragments and boulders. The mountain masses contain older igneous rocks—a kind of syenitic porphyry; conglomerates and breccias occur in numberless varieties.

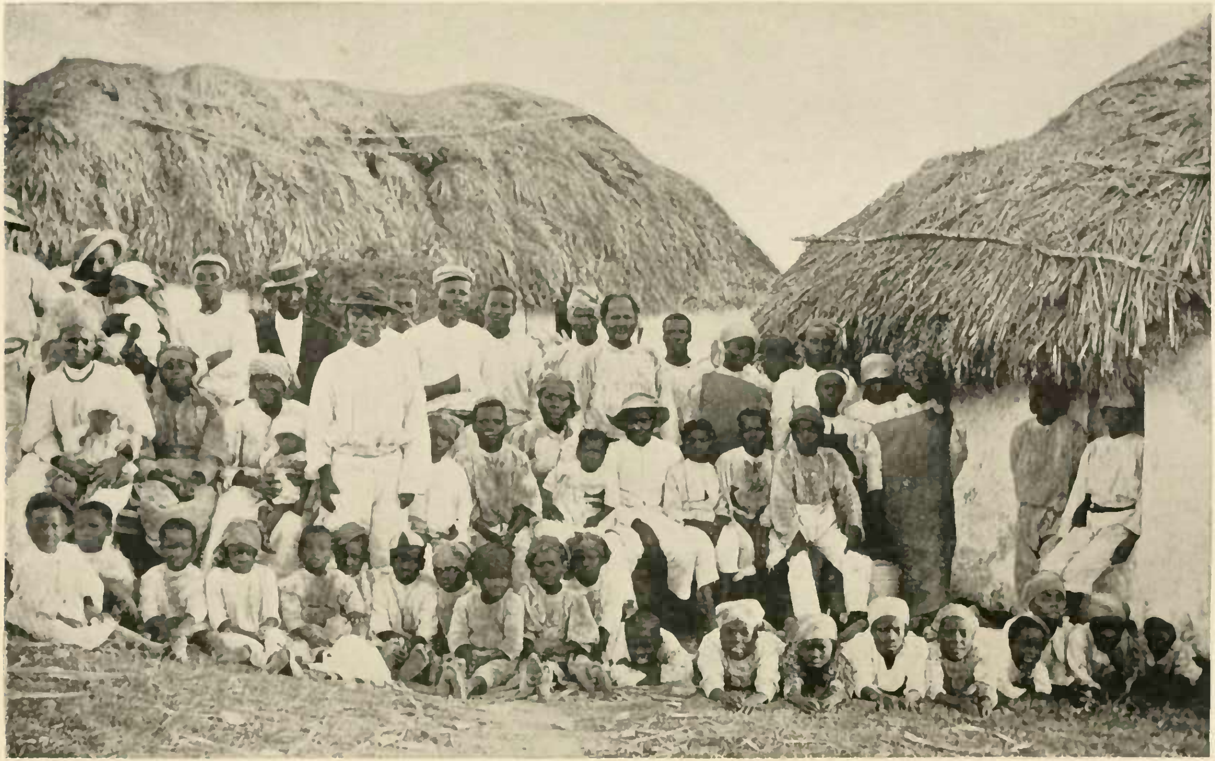
The island is an administrative dependency of Guadeloupe. The capital is Fort Gustave; the people, mainly of French descent, speak English. It was originally settled by the French, who held possession until 1784, when it was traded to Sweden; but in 1878, France purchased it back.

St. Martin, thirty-eight square miles in area, is almost triangular in outline and composed of many lofty conical hills, culminating on the north side in Paradise Peak, 1920 feet high, while other peaks follow to the south. The west side is marked by stretches of a low-lying peninsula known as Basse-Terre. Along the shores are many large lagoons, and in the interior several rivulets and permanent springs. It is diversified by lofty mountains and broad plains. On the lower slopes and hillsides are fertile plantations, while the heights are covered with dense forest. The rocks are largely composed of silicious limestone intersected by dikes of greenstone and diorite, all of which are bordered by the more recent formations of white granular limestone.

The political complexion of St. Martin is peculiar. Seventeen square miles of the northern section belong to France, and the rest to Holland, while the settlers, largely blacks, are principally British, who outnumber both the Dutch and French. About three thousand of the inhabitants are in the French portion of the island, and five thousand in the Dutch.

The French capital, on the west side, is a queer place by the name of Marigot; it is a free port and has a little shipping. The Dutch town Philipsburg lies on a narrow beach at the south side. Like all the other West Indies, this island was once the seat of sugar-culture, but the inhabitants are now generally engaged in making salt and raising provisions.

Barbuda lies thirty miles northeast of Antigua, well out in the Atlantic Ocean. Its area is sixty-two square miles. It is low and flat, consisting of two general levels, one of which hardly rises more than five feet above the sea, except near the eastern side, where a terraced table-land reaches one hundred and fifteen feet in height. On a misty day



ENTIRE POPULATION OF A NEGRO HAMLET, ANTIGUA

the island is hardly visible, and many shipwrecks occur. In former years these accidents were the chief support of the population, who made their living by wrecking. The absence of a lighthouse makes navigation dangerous. Barbuda is composed entirely of granular shell-debris, elevated by geological action. The surface is covered by a dense thicket of chaparral, with a few good-sized trees growing upon the thin limestone soil. Notwithstanding assertions to the contrary, the land is unfit for general agriculture. As there are no running streams, the inhabitants are dependent upon cisterns, while the wild animals live upon such rain-water as is caught in the cracks and crevices of the rocks. Nearly all the European domestic animals introduced in former centuries have run wild; goats, horses, cattle, and cats have returned to their primeval state, while hundreds of English fallow-deer are found. The African guinea-fowl is here in great abundance, and is as shy and timid as the American quail. Wild dogs also abound.

Politically Barbuda is a parish of Antigua, being administered by a resident justice of the peace, whose business it is to look after poachers. His staff consists of a school-teacher and a midwife. For three hundred years it was a hunting-preserve of the Coddrington family of Barbados, whose name so frequently appears in the annals of the British West Indies, and it has never been opened to settlement. Nevertheless, the island has been squatted upon by a hardy race of negroes, who have developed into a peculiar class, noted throughout the West Indies for their splendid physical development and ability as sailors. They are restricted by the company owning the island to the use of a few acres of land; and although they are not permitted by law to gather a stick of wood, to kill the wild animals, or to fish inshore, they manage to poach a good living. They live in a village which is perhaps more thoroughly African than any other in the New World. The huts are of the most primitive African type, composed of wickerwork with thatched roofs, each encircled by a wicker fence, and so huddled together that in order to walk through the village one follows serpentine paths barely wide enough for a single person.

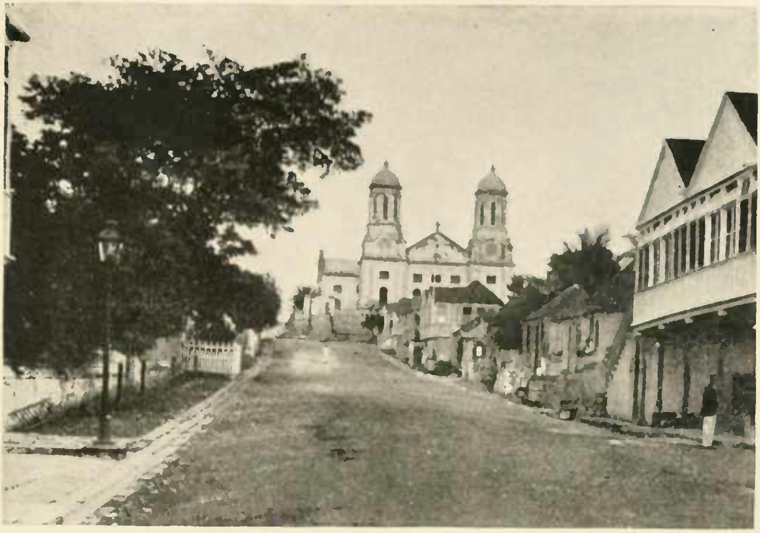
At present the island is leased by a Scotch company, which derives a small revenue from hunting the deer for their hides, and cutting the yellow sandalwood. The overseer, the only white man on the island, lives in comfort in the one civilized building, known as the Great House, which was formerly the Coddrington hunting-lodge.

Barbuda has been seldom visited by travelers; in fact, the writer is one of the few who have had an opportunity to explore it within recent years, thanks to the courtesy of Mr. Donald Dougald, the genial Scotch agent, who kindly granted the hospitality of his private schooner and the attendance of his servants upon the island.

There are several ruins of old forts,—strongholds built by England during the last century,—whose massive walls and round towers are still found in various parts of the island, reminders of the days when every foot of the West Indies was so valiantly struggled for by the European nations.

The island has no harbor, and landing is made through the surf on the backs of sailors, who deposit one on a beach of shell-sand. In the distance this beach looks like a narrow band of white intercalated between the blue of the ocean and the green of the land. Upon close approach, however, beautiful blushes of carmine can be seen to glow and fade away with each dash of the ocean surf. These blushes vie in color with the iridescent tints of the royal Caribbean sunsets. This phenomenon was easily explained upon close examination. Each wash of the waves brings up millions of tiny pink shells, which are deep red while wet, but fade as they dry between long rolls of the surf.

Antigua is the principal island of the Leeward group, of which it is the political capital, being the residence of the governor and his staff. Until recent years this was one of



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SUGAR-ESTATE

ANTIGUA

the most valuable of England's possessions in the Lesser Antilles. The northern half consists of undulating plains of calcareous formation, like Sombrero and Barbuda, while the southern side is of a more mountainous type, composed of old volcanic tuffs and covered with forests.

On the west side is the principal and practically the only port at present utilized, that of St. John. The town lies at the inner end of a magnificent oblong bay, with a picturesque island in its center. This bay is so shallow, however, that steamers are obliged to lie five miles away from the city and load from lighters. An immense sum has been expended in preparing to dredge a channel to the city, but through some financial difficulty the machinery lies in the harbor unutilized. St. John is a pleasant place, consisting of large and commodious frame houses situated upon clean, well-graded, and macadamized streets. There are many public buildings, handsome gardens and lawns, the public institutions all being models of neatness and order. There is an imposing English cathedral. A good public library, freely patronized by the inhabitants, is found upon one of the central streets.

Royal Harbor, on the eastern side of the island, was the headquarters of the British admiralty in the West Indies during the French wars. The gateway leading into this harbor from the landward side is now guarded by a single marine, and the massive buildings in which English naval heroes were formerly quartered are silent and deserted.

Most of Antigua is in a state of cultivation, being laid out in neat plantations with extensive manor-houses and sugar-mills, while finely constructed roads lead to all parts of the island. Each estate has extensive sugar-houses, with huge Dutch windmills for grinding cane, although steam machinery has been largely introduced, and the people believe that the introduction of improved processes will benefit them. The population is 36,119, mostly blacks, yet the land is held by less than sixty owners. The white planters—intelligent and respectable Englishmen or their descendants—are reduced in circumstances, and present to the stranger the aspect of a refined but impoverished people, bravely endeavoring to keep up appearances. The negroes are orderly, well educated in the elementary branches, and willing laborers at less than a shilling a day; but even these show poverty in their emaciated forms, their depressed manner, and the lack of that luster of complexion which always indicates the well-fed black.

The economic condition of Antigua is indeed pitiful. Of the total exports of the island ninety-six per cent. is sugar, and between the years 1882 and 1896 the value of the sugar exports decreased fully one half. In former times it was one of the most productive of the sugar islands, but has suffered from falling prices and the constant strain upon the soil of over-cultivation. The scrawny cane-fields require a greater outlay in fertilizers than they can possibly return in profit; furthermore, the cane is subject to mildews and other parasitic fungi which sap its vitality. Accompanying this struggle to maintain the sugar industry there has been a falling off of wages of the hosts of laborers who are dependent upon it. It did not require the evidence taken before the late British Sugar Commission to show that poverty is increasing, houses falling into disrepair, and that generally a state of depression exists, which must eventually cause still more suffering and discontent. So far as the culture of cane is concerned, the people have availed themselves of every method of modern agriculture. The government supports a chemical laboratory where the needs of the soil are carefully studied, as well as the diseases of the cane, yet the crop is constantly decreasing in quantity as well as depreciating in value. Most of the sugar is still made by the muscovado process, owing to the special fitness of the soil for producing a cane-juice yielding a rich and valuable quality of molasses. As in all places which depend on the export of muscovado sugar, the great fall in molasses has been another blow to the planters.

A SUBURBAN HIGHWAY

VIEW OF CITY AND HARBOR

ST. JOHN, ANTIGUA

England has done all within her power to give this island civilization, but, with the decrease in the price of sugar, government expenditures have rapidly grown, owing largely to the attempts to improve the harbor; and the public revenue is now far less than the expenses. If the sugar industry fails, the future of Antigua will be more gloomy than that of the other islands, its capabilities being less and its liability to droughts and hurricanes greater. The local trade, once in the hands of rich English merchants, is now rapidly falling into the hands of a people who are known as Portuguese, but in reality are natives of the Azores.

Grande-Terre (Guadeloupe), Désirade, and Maria Galante, which by natural affinities belong to the Anguillan group, are politically essential parts of Guadeloupe, and will later be described with that island.

CHAPTER XXX

THE VOLCANIC CARIBBEES

Singular beauty of the islands. Flora, fauna, and geological character. Saba. St. Eustatius. St. Christopher. Nevis. Montserrat.

THE symmetrical row of true Caribbees begins with Saba, on the north, and ends with Grenada, on the south. It consists of eleven conspicuous members, including, in order, the islands of Saba, St. Eustatius, St. Christopher (St. Kitts), Nevis, Montserrat, Guadeloupe, Dominica, Martinique, St. Lucia, St. Vincent, and Grenada. This group is perfectly alined in a flattened crescent, the concave side of which faces westward; its members occur at remarkably regular intervals, averaging about thirty miles. They are extraordinarily alike in configuration, climate, and economic possibilities, and yet collectively different in natural aspect from any other West Indian group.

A beautiful sight presents itself to the traveler who sails down the inner side of the Caribbee Islands and views from the steamer's deck these wonderful lands as they pass in rapid procession, rising almost vertically from the deep-blue sea, which on this side is ordinarily of glassy smoothness. Each island seems to float in the atmosphere between the azure waters and the wealth of misty clouds which envelops its summits; the gorgeous colors on its slopes present, under the various influences of the cloud-tempered lights, every shade of delicate tropical vegetation.

FORT-DE-FRANCE, MARTINIQUE

When thus viewed the islands appear as Edens of loveliness. Their general tone is fresh and green, or, in comparison with the other islands, more somber, for the glaring whites so conspicuous where limestones and shell-sand abound are entirely missing here.

While precipitous to an astonishing degree, they are not craggy or angular, but rise in great curves and slopes to the rounded summits of the high mornes which crown them. These mountains are peaks, but not pointed, and while appearing everywhere, they do not occur in regular crests or ridges, but are arranged in intangible masses. From the sea the slopes appear so steep that the beholder constantly wonders how human beings can find upon them foothold to till the cultivated areas or to travel from place to place through the jungle of verdure; yet one will see here and there, surrounded by the more somber forests, bright patches of green cane accompanied by large groups of houses. In addition to its own matchless verdure, each island is ornamented with palms, roses, and exotic plants brought from all parts of the world by the former inhabitants. Here the gigantic banian of India grows beside the African date-tree and the traveler's palm of Madagascar.

Ashore, so far as nature is concerned, the illusion is not dispelled. The vast mornes, cliffs, and ravines are decked with every delicate species of deciduous vegetation, from ferns that entangle the feet to forest giants that cast their shade from high overhead. These are moistened by gentle daily rains, giving the delicious odors and aspect of a landscape after a summer shower. Nature has been no less generous in her bestowal of limpid waters than in her vegetal bounties; everywhere there are running streams, springs, fountains, and cascades, so copious and abundant that it is a matter of wonder how watersheds so small can supply them. The picturesque houses of the European residents, built in the styles of former centuries, and the varied dress and habits of the peculiar people are ever interesting, especially in the five central islands of the group, Montserrat, Guadeloupe, Dominica, Martinique, and St. Lucia.

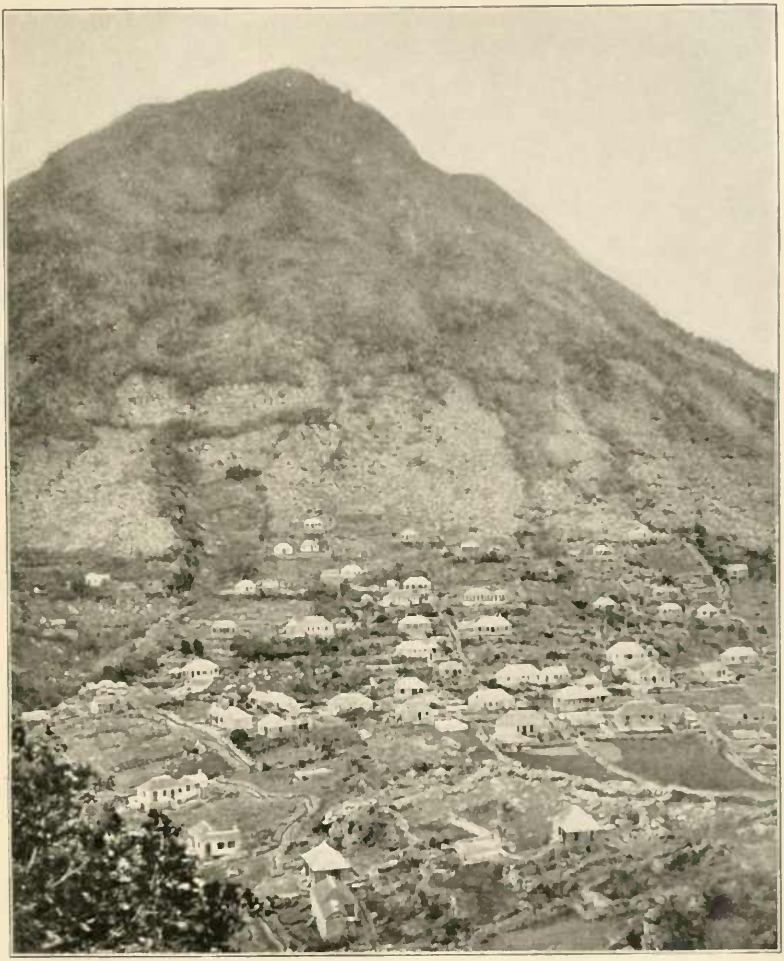
The climate of the Caribbee Islands is in general pleasing, the equable temperature ranging from about 66° to 82° at the level of the sea, and slightly decreasing toward the summits. The rainfall also varies with altitude and locality relative to the trade-winds, the precipitation being usually much greater on the leeward side. There is hardly a day in the year when gentle rains fail to fall, and sometimes tremendous cloud-bursts occur, with disastrous results.

Geologically these islands are peculiar. They are of volcanic origin, but not volcanoes, although a few craters can be found, though invisible from the distance, nestled in some of the lofty eroded summits. The islands are great heaps of old volcanic debris piled up in the Tertiary period, which have been carved by water into their present forms. The rocks are all basalts or crumbling tuffs, which weather into black soils of marvelous depth and richness.

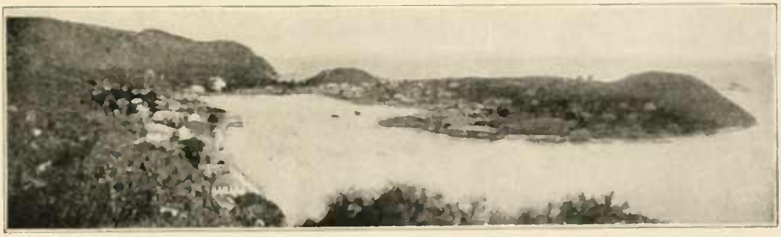
While not blessed with native mammals, these islands abound in beautiful birds; each has a special fauna. Of one hundred and twenty-eight birds collected by Ober, seven species only are common to all the islands, while as many as fifty-two of them occur in one island. There are singularly few venomous reptiles or insects, except on Martinique and St. Lucia, where are found the fer-de-lance, a poisonous trigonocephalous snake, the most venomous and deadly of the serpentine kind.

The windward sides are quite different; the open Atlantic breaks with a terrible surf against the shores, and the trade-winds sweep them with such ferocity that the vegetation all bends in a cringing position toward the land. There are no ports along this side, and passing steamers keep far from the shores.

These islands, so allied by natural affinities into a kindred group, are cursed by unnatural distribution among the nationalities. Sailing down them you first meet Dutch



TOWN OF BOTTOM, ISLAND OF SABA, SITUATED IN AN OLD CRATER



GUSTAVIA, ST. BARTHOLOMEW

CARIBBEE ISLANDS

Saba, from which you can see the same flag flying over St. Eustatius, or beyond it the Union Jack of England on St. Kitts. The last-named government also owns Nevis. Then comes French Guadeloupe, from which you can see English Dominica, intentionally left between it and French Martinique for the purpose of severing the two French colonies. From Martinique southward the others are British possessions, though St. Lucia is French in population and tradition.

Saba, St. Eustatius, St. Christopher, Nevis, and Montserrat constitute the northern end of the chain, and their combined area is not equal to that of any one of the five central islands. Saba and St. Eustatius are exceptional features, inasmuch as they are each fine examples of old volcanic cones or craters.

The queer little Dutch island of Saba is only five square miles in area. It is a single volcanic cone rising sharply out of the sea to a height of nearly twenty-eight hundred feet. The volcanic rocks of the island are not solid basalts, but mostly irregularly stratified tuffs. There is said to be a large mine of pure sulphur. The landing is a rocky cove, and from this one must ascend a precipitous pathway known as the Ladder, consisting of steps cut in the rock, to the height of eight hundred feet, in order to reach the principal settlement, known as the town of Bottom, which is located on the floor of the old crater. Everything has to be transported up to this height on the heads of the people; one hundred pounds is the ordinary load. The twenty-five hundred Dutch residents forming the principal population are fair-skinned, rosy-cheeked, and tow-headed, and afford an interesting example of successful north-European colonization in the tropics. Strange to say, their principal occupations are seafaring and boat-building. The best and stanchest fishing-boats of the Caribbees are built in this crater and lowered down the mountain-side with ropes. The timber for constructing the boats must also be drawn up in a similar manner.

Saba is also exceptional in that its population is white, the blacks overwhelmingly predominating in the other islands.

St. Eustatius, St. Christopher, and Nevis seem to be the tips of a larger submerged area represented by a shallow bank which closely follows their shores. St. Eustatius, eight square miles in area, is also a part of Holland's diminutive American domain, and has a population of 2350 people, mostly Dutch and negroes. The island has a few patches of level land, but is largely made up of several old volcanic hills, like two or three Sabas crowded on a single platform. The principal crater is near the southern end of the island, and is a perfect specimen of a cinder-cone, slightly broken down on the northern side, the lower slopes falling away into low hills and meadows, which make up by far the greater part of the island, which is thinly inhabited and without trade. In olden times its caves and secret valleys served as hiding-places for pirates and smugglers, and it is not entirely free from suspicion at the present day. Stoddard, in his charming book entitled "Cruising among the Caribbees," says that St. Eustatius is a great resort for picnic parties. Judging from the condition in which a party returned thence to St. Kitts, some of whose members paid a visit to Stoddard's ship after their day's outing, there must still be stores of spirits in the craters, and a readiness to share them with all comers.

St. Christopher—or St. Kitts, as the English call it—can be seen from St. Eustatius, apparently floating like a huge black iceberg in the sea. A nearer approach brings out its beautiful colors. Hearn has pictured it as a long chain of crater shapes, truncated, jagged, or round. All these are united by the curving hollows of land or by filaments,—very low valleys,—and from a distance not remote take on a curious segmented, jointed appearance, like certain insect forms.

The oval-shaped island is thirteen miles long and from three to six in width, embracing in all about sixty-five square miles, three fourths of its area being under cultivation. The mountains of St. Kitts are broken into wild ridges and ravines for several thousand feet, meeting the sky with an edge like a knife-blade, and culminating in a pyramid of black lava known as Mount Misery, 4330 feet high. Since emancipation it has borne the name of Mount Liberty. In its summit is a crater about one thousand feet deep, which has been long quiescent, and is now transformed into a lake fringed with trees. A sister summit, Monkey Hill, is nearly as high. One of the parasitic cones, known as Brimstone Hill, seven hundred and eighty feet high, is crowned by a citadel formerly called the Gibraltar of the West Indies, but now abandoned.

The principal town, Basse-Terre, is situated on a beautiful curving inlet of the shore. The town from the sea presents a charming glimpse of red and white roofs nestled among tall trees, while gradual slopes covered with sugar-plantations and dotted with tall chimneys or groups of whitestone buildings appear behind the town. There are palms everywhere, cocoa-, fan-, and cabbage-palms; many breadfruit trees, tamarinds, bananas, Indian fig-trees, mangos, and unfamiliar things the negroes call by incomprehensible names—"sap-saps" and "dhool-dhools."

Like all the English colonies, St. Kitts has excellent roads. There are several small villages throughout the island. The people, who call themselves Kittefonians, have many tidy, well-built wooden houses, arranged in neat streets, or surrounding a handsome square containing a wonderful banian-tree and many other beautiful plants. The population of about 31,900 is nearly all black or colored. The distinction between these classes is very marked and always insisted upon. Colored people may associate with whites upon terms of equality, but the negro is always reckoned as belonging to a servile race, and must keep an appropriate station.

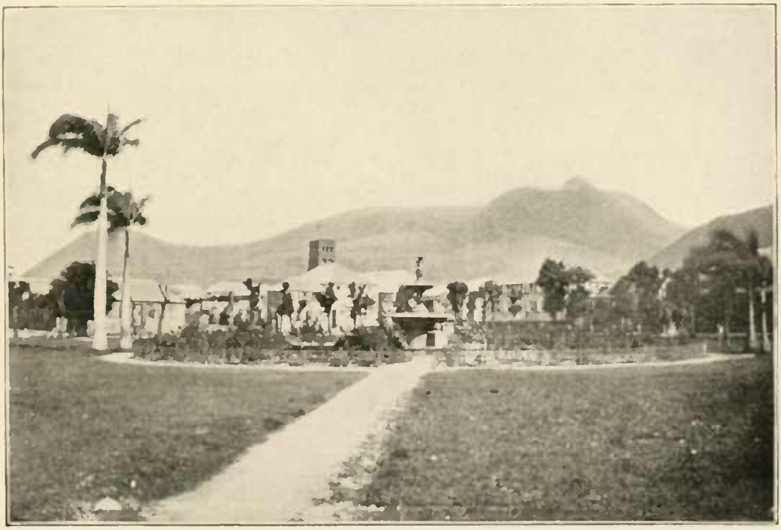
Sugar is practically the only export, and this industry is almost dead, the condition being very similar to that in Antigua. Reduction of labor and want of employment have caused great distress among the black laborers, who are unable to obtain holdings of their own, and in 1896 there were serious riots.

St. Kitts is known as the mother colony of the Caribbees. Here were founded the first French and English settlements, and from this point the southern islands were gradually peopled. The island was named St. Christopher by Columbus, but when it came into the possession of the English its name was changed to St. Kitts. The aboriginal name was Lia Minga. The Spaniards did not settle the island; the English were the first to take possession, and they were followed shortly afterward by the French. At first the English and French divided the opposite ends between them, and the respective domains were marked by cactus hedges. Later the island underwent various attacks from the Spaniards and bucaneers, and suffered by warfare between the French and the English. In 1690 the English settlers, aided by the forces of their country brought in for the purpose, expelled the French. At present St. Kitts and Nevis form one British presidency under a single administration.

Nevis, from a distance, appears, as said by Hearn, to be "floating like a cloud on the purplish dark edge of the sea." As one approaches, "the cloud shape enlarges and heightens, without changing contour, into a wonderful island." "Its outlines begin to sharpen, with faintest pencilings of color. Shadowy valleys appear, spectral hollows, phantom slopes of pallid blue or green. The apparition is so like a mirage that it is difficult to persuade one's self that one is looking at real land—that it is not a dream. It seems to have shaped itself suddenly out of the glowing haze." It is a superb cone rising sheer from the sea to a height of 3460 feet, and flanked by secondary crests.

This little island is one of the most charming and picturesque of all the Lesser Antilles. Although it is not in the regular route of steamers, it is reached by a half-hour's sail from St. Kitts. It was originally named Nievis by

PUBLIC GARDEN



VIEW

ST. KITTS

Columbus, in honor of "Our Lady of the Snow," but the English have corrupted it into "Nevis." It is famous as the birthplace of Alexander Hamilton, and in the old Fig-tree Church, a few miles from town, the register shows that Horatio Nelson, then a captain in the British navy, was married to Mrs. Fanny Nesbitt.

The estimated present population is 13,700. The acreage is 32,000, of which 6868 acres are cultivated. The precipitous nature of the surface prevents cultivation with the plow, so that all tillage is that of the spade. Here, as elsewhere in the British Caribbees, the black man has emigrated in search of employment, and the women greatly outnumber the men.

Charlestown, the capital, has only a few hundred inhabitants, and hardly more than a single street stretching along the beach. The architecture is of the ancient period of English West Indian settlements, and embraces quaint old houses of stone with tiled roofs. General decay is noticeable. Whites are few, negroes many. In olden days this island was famous for its fertility and wealth, and Charlestown was the principal pleasure-resort of the West Indies, where wealth and fashion gathered to spend the season at the famous sulphur baths. These are a short distance from the town, where the ruins of an immense hotel, which might have accommodated several hundred guests, can be seen.

Politically Nevis is really a part of St. Kitts, from which it is separated by fourteen miles of water, the channel being only twenty-six feet deep and scarcely two miles wide at its narrowest part. The two islands have daily communication by a steam ferry. Nevis, however, seems to be much better off than its neighbor, the difference being attributed to the fact that in the former island the negroes have no difficulty in obtaining land, which has been broken up and sold in small lots. Like the other British islands, Nevis is heavily charged with debts and ever-increasing expenditures, accompanied by a declining revenue.

From Nevis one can see the summits of Montserrat, about forty miles southeast. This is the first and smallest of the middle islands of the chain—the larger beads of the graduated necklace.

Montserrat was so named by Columbus in 1493, in memory of a mountain in Spain similarly broken in appearance. It is small, its length being only eleven miles and its greatest width seven, with a total area of thirty-two and a half square miles.

From St. Kitts southward the crater-like appearance of the Caribbees ceases, and Montserrat is of the rugged morne type of Martinique, with *soufrières*, or secondary craterlets, nestled within the greater mass of old eroded volcanic material. It is a confusion of hills and mountains, the highest reaching three thousand feet. These are richly wooded, and their steeply sloping sides are gullied by deep ravines. The island is called the Montpellier of the West, because of the elasticity of its atmosphere, the picturesqueness of its hills, and its lovely scenery. The temperature varies according to height, and is generally cool and dry.

Plymouth, the capital, like all the prominent towns of the Caribbees, is on the west or leeward side. It lies close to the sea-shore, backed by high hills and mountains, and is a collection of closely crowded two-story frame and stone houses with gabled roofs.

The Englishman will tell you that Montserrat is historically conspicuous from the fact that it has not suffered in the past to the same extent as the other islands from the brunt of the imperial wars, although, like the others, it was a bone of contention between the French and the English. It was settled by the English in 1632, occupied by the French in 1664, became English again in 1668, surrendered to the French in 1782, and returned to the English in 1784, since which it has been an English colony. To an American this may appear a complicated history, but in comparison with the vicissitudes of the other islands its career as a whole has been delightfully quiescent. Montserrat has also passed through all of the various changes leading to an English crown colony. It has a president, or, as he is now called, a commissioner, with the usual executive council, legislative council, etc., under the supervision of the general government of the Leeward Islands.

It was peopled at the last census by 11,762 souls, but the number is now estimated at 12,500, and it is one of the most densely populated of the British Lesser Antilles. In former centuries the island had a large European population, but it is now mostly inhabited by negroes, who, strange to say, speak to this day with an Irish brogue, owing to the fact that the earlier settlers were of that race. A story is told of an Irishman who, on arriving at the island, was hailed in vernacular Irish by a negro from one of the boats that came alongside. "Thunder and turf!" exclaimed the Irishman, "how long have yez been here?" "Thray months," the black man answered. "Thray months! and so black already! Be the powers, I 'll not stay among yez!" And the visitor returned, a sadder and wiser man, to his own Emerald Isle.

Most of the negro peasants possess some land, and, while there is poverty, there is no distress. Between the years 1882 and 1896 the value of its chief crop, sugar, fell off one half. The sugar-estates produce muscovado sugar only, and this is no longer in demand. But the British in the West Indies will tell you that Montserrat is distinguished by the fact that it has largely survived the sugar desolation and branched out into new lines of agriculture, particularly the cultivation of limes. Arrowroot is also exported in small quantities, as well as essential oils. To my eyes, however, there was no sign of what we call prosperity in this country, where a condition similar to that of Montserrat would suggest only the "abandoned farms" of New England. The revenue, as elsewhere, is constantly falling off. Public works are being advanced and new roads built, but these only add to the taxation and suffering of the people.

In November, 1896, a terrific storm of wind and rain wrought havoc and desolation over the island; roads became roaring torrents, and valuable properties were destroyed by the floods.

CHAPTER XXXI

THE ISLANDS OF GUADELOUPE AND DOMINICA

Government and resources of Guadeloupe. Basse-Terre. Grande-Terre. Maria Galante. Désirade. Les Saintes. Cities and towns of Guadeloupe. Dominica the beautiful. A fertile soil awaiting cultivation.

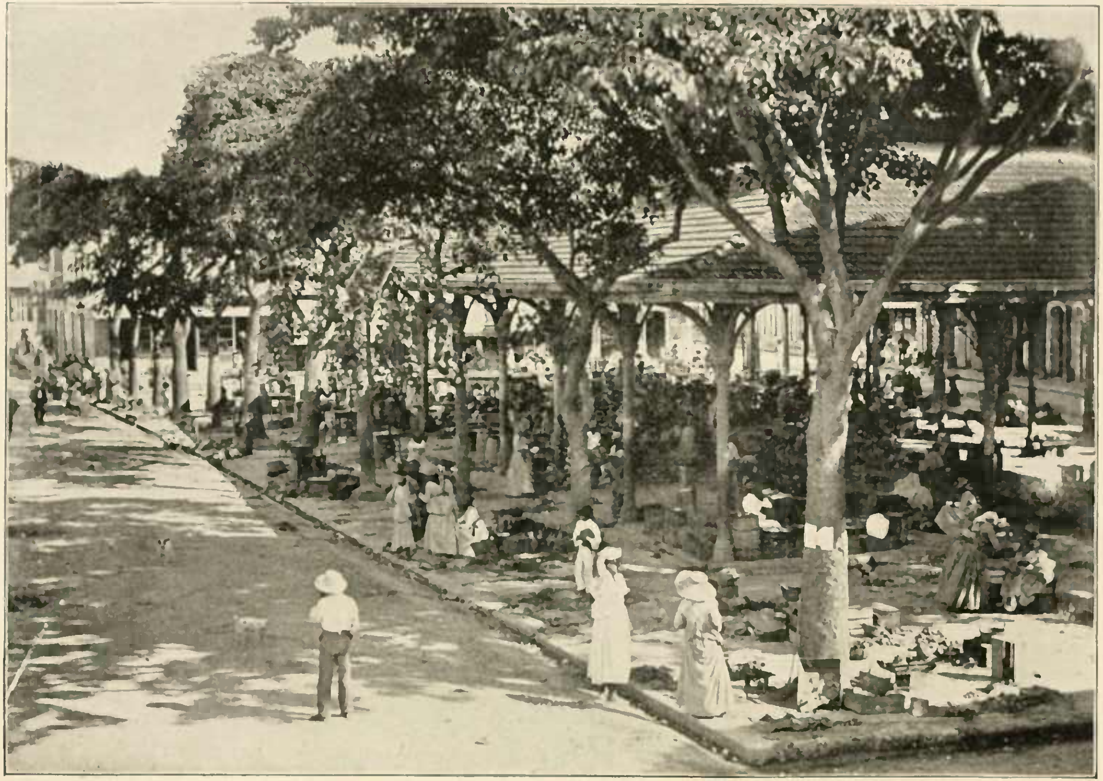
FROM Montserrat the beautiful French island of Guadeloupe is plainly seen, but the chances are ten to one that you cannot go to it without first returning to St. Thomas or New York, to get some other than an English line of steamers. A perpetual quarantine seems to exist between the French and English possessions, which renders communication between them difficult and oftentimes impossible.

Guadeloupe and Martinique are the two largest islands of the Caribbees and are owned by France. They are separated from each other, however, by the large English possession of Dominica, almost equaling either of them in size, and they have little in common, as each island constitutes a distinct department of the republic of France. But these two large French islands are most picturesque and interesting. There is no appearance of that abject poverty and incessant begging which meet one at every turn in the English possessions. People have an air of thrift and self-respect, which finds expression in the cleanliness and the taste displayed in their dress, streets, houses, customs, and agricultural possessions. The reader who wishes to know more about them than I can tell now should read Ober's "Camps in the Caribbees," and Lafcadio Hearn's delightful book entitled "Two Years in the French West Indies."

These French islands also excel the others in agricultural development, and in the midst of the general Caribbean industrial depression show at least some signs of vitality. Furthermore, each is populated by a wonderfully picturesque people, having costumes and habits which preserve as nearly as possible the old-time French colonial life of Haiti and Louisiana.

Guadeloupe lies in latitude 15° N. and longitude 61° W., and has an area of five hundred and eighty-three square miles—more, in fact, than the combined area of all the small Caribbees thus far described. It consists of an archipelago, or rather one large double island with several small dependent ones; for the main Guadeloupe is divided into two well-defined and entirely distinct islands by a marine strait known as the Rivière Salée, which is navigable for small sailing-vessels.

The western half, known as Basse-Terre, is a rugged mass of old volcanic tuffs, like Martinique and Montserrat, surmounted by four superb cloud-capped mornes. These are known as Grosse Montagne, Deux Mamelles, La Soufrière, and the Caraibe, and rise 2370, 2540, 4900, and 2300 feet respectively. Besides these there are dozens of smaller peaks, such as the Houlemont, less than 1800 feet high. The Soufrière was an active volcano in 1797, when it hurled forth dense ashes, pumice, and sulphurous vapors. In 1843 its convulsions shook the island and tumbled its towns into ruins. There is no record of more recent volcanic action, but the many thermal springs and soufrières emitting vapors and gases show that it is not altogether quiescent. Like all the volcanic Caribbees, the Basse-Terre is beautiful beyond description, its mornes and valleys, its steep coastal bluffs and mantle of vegetation, being especially fine. The forests are interspersed with valuable timber, but this is little worked. The mean



MARKET, GUADELOUPE

temperature is 78° F., the minimum being 61° and the maxmum 101°.

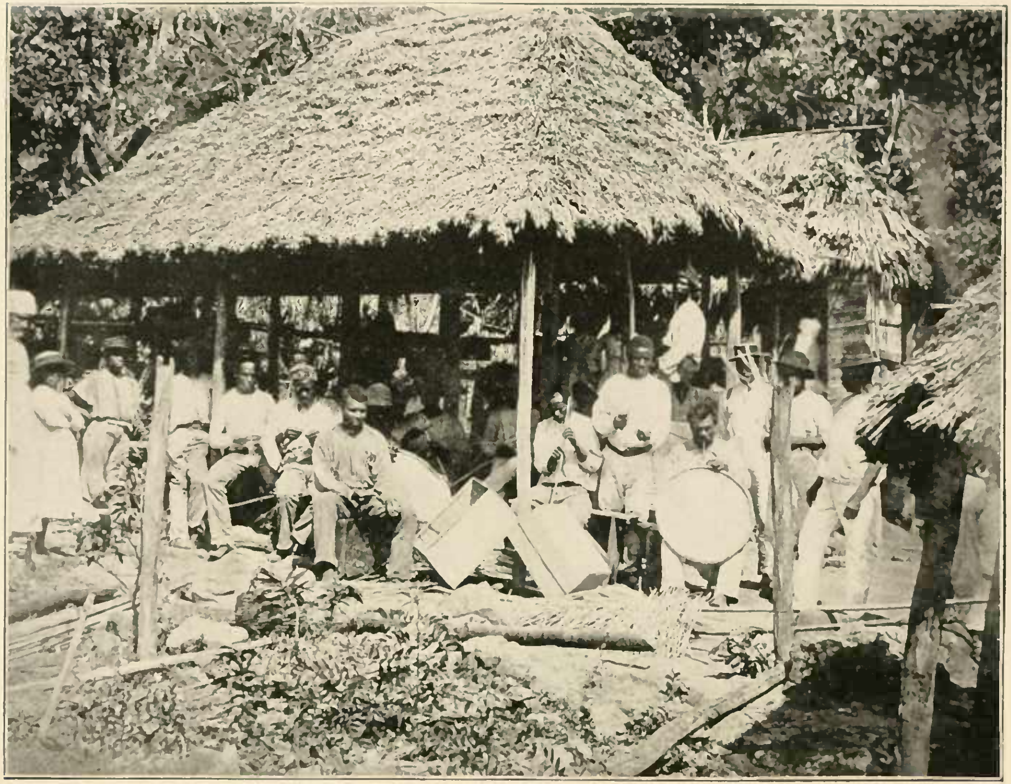
The eastern or windward island is known as the Grande-Terre. Geologically it is entirely different from the Basse-Terre, belonging to the Anguillan type, previously described. It consists of a calcareous plain, some two or three hundred feet in height, which has been cut into numerous circular islands by erosion. The highest point on this island is only four hundred and fifty feet. This region is now the seat of extensive sugar-estates. The coast of Grande-Terre is constantly increasing through coral growth and the washing of the debris upon the shores. This consolidates and is quarried for building purposes. The process of consolidation goes on so rapidly that small objects are constantly embedded, and the supply for building renewed. The Grande-Terre is almost a continuous plain of sugar.

Attached to Guadeloupe are several adjacent outlying islands—Maria Galante, Désirade, and Les Saintes. Maria Galante and Désirade are calcareous, like Grande-Terre, of the Anguillan type, but more largely made up of elevated coral-reef rock. The former is a few miles south of Guadeloupe. It is so terraced that it resembles an old Babylonian tower, surmounted by a plateau six hundred and seventy-five feet high. The island is forty miles in circumference and supports seventeen thousand people. Désirade lies to the east of Grande-Terre. It is a little island with a terraced platform, very similar to the round hills of the mainland. It is ten square miles in area and supports fourteen hundred people. Les Saintes, to the south of Basse-Terre, are fragmentary igneous rocks disposed in the same direction as the whole interior chain of the Caribbees. These picturesque islets culminate in La Chameau, altitude ten hundred and forty feet. They were once the health-resort of Guadeloupe, and their summits are crowned with old fortifications. The basin of the Saintes is still an important French naval station.

Guadeloupe was a Spanish possession until 1635, when it was taken by the French. Since then the island has several times changed hands, the English having captured it in 1794 and freed the slaves. In 1802, the island having been returned to France, together with Martinique, in exchange for St. Lucia, the French attempted to restore slavery; but, rather than return to their masters, many of the people committed suicide, four hundred under Delgris having blown themselves up at one time, in a fortification. Over ten thousand blacks were killed or transported, and thousands sent to the Napoleonic wars in Italy. England again captured the island, in 1810, during Napoleon's brief reign of one hundred days, but afterward returned it to France. In 1848 emancipation was declared.

Communication is carried on entirely by highways and coasting-vessels. All over this double island are the best of roads, some of which lead up to the woods that border on the gloomy crater of the quiescent volcano. Here, as well as in the sister colony of Martinique, will be noted the thrift and good management of the French. The people go from place to place afoot, or in quaint French vehicles like those seen in the mountainous portions of France. There are no railways, nor have any American inventions been introduced into Guadeloupe.

While Guadeloupe is agriculturally more prosperous than the British colonies, it nevertheless presents signs of the universal decay which has overtaken the Caribbee Islands. Sugar is the chief agricultural product, and is grown upon 502 properties, employing 42,000 people. The sugar industry is much more economically conducted than in the British islands, through a system of central *usines*. There are numerous coffee-plantations in Guadeloupe. The coffee and sugar interests do not conflict, for coffee is grown on the highlands and sugar on the lower plains. The cultivation of coffee employs 4936 people. In all there are 62,760 acres in sugar, 86,485 acres in coffee, and 4037 in cocoa. France consumes most of the products of



CARIB INDIANS MAKING BASKETS, DOMINICA

Guadeloupe, although there is an extensive trade with the United States and Great Britain.

Guadeloupe is a department of France. The government consists of a governor and his council, and a general legislative assembly of thirty members. The jurisdiction embraces the islands of Basse-Terre, Grande-Terre, Maria Galante, Désirade, Les Saintes, and half of St. Martin, previously mentioned. The colony is divided into arrondissements, cantons, and communes. The municipal councils are framed on the French model, and the department is represented in the French chambers by one senator and two deputies. The revenue and expenditure of the island each amounted to $1,305,000 in 1897. France, furthermore, expended $403,000 on the colony. No specie is in circulation—only notes of the bank of Guadeloupe. They read, "Redeemable upon presentation in specie." No exchange is obtainable with the United States, and only a limited exchange with Paris, at a premium of ten per cent. for a draft of one hundred and twenty days. There are ninety-seven elementary schools, with 11,000 pupils; also one *lycée*, with 350 pupils. The imports for 1896 amounted to $5,490,148; the exports, $4,700,000. One fourth of the value of the imports in 1895 was from the United States, but the island products went to France.

Point-à-Pitre (population 17,100) is the principal seaport, and is situated on the windward side of Basse-Terre. The present town is new, but stands on a site where older buildings have been destroyed by fire, earthquakes, and hurricanes. It is laid out in broad streets with public squares, and contains many large buildings with high gabled roofs. There is an interesting museum containing specimens of the animals and archæological remains of the island. The city has many official buildings, a cathedral, a market-place, and some beautiful gardens. Point-à-Pitre has suffered many disasters, especially a terrible earthquake in 1843.

Le Moule, on the east side of Grande-Terre, is as large as Point-à-Pitre. There are many small villages, like Porte d'Enfer, and Grand Bourg, the capital of Maria Galante.

The population of the main island in 1894 was 107,000, three fourths of whom were colored people and blacks. There were also 15,000 coolies. These people are largely French mulattos, of a type which will be more fully discussed in our description of Martinique.

Dominica stands between the two French islands of Guadeloupe and Martinique, almost rivaling them in size, and is the largest of the British Caribbees. The island is twenty-nine miles long, sixteen miles broad, and has an area of two hundred and ninety-one square miles. It presents the same magnificent scenery as all the Caribbees, in fact exceeding them in the loftiness of its mornes and the beauty of its vegetation; for here is found the highest summit of the island chain, known as Morne Diabloten, 5314 feet high. From the top of this the scenery is terrible in its grandeur, yet enchanting in its beauty. A little sulphur occurs in old soufrières in the mornes, and there are several thermal springs, but there are no true or recent volcanic craters. There is a beautiful old crater-lake, however, about 2500 feet lower than Morne Diabloten, which, until recently, was still flooded by boiling water from springs bubbling up from the bottom, and every five minutes upheaving in a foaming geyser. In 1880, however, land-slips took place, and much of the water escaped, the lake having thereby been greatly diminished in area. Within a short distance from the margin it is not less than three hundred feet deep.

The island is noted for the quantity of its rainfall. The temperature ranges from 70° in spring, winter, and autumn, to 80° in summer. The exports are cattle, cocoa, lime-juice, rum, molasses, and sugar.

Dominica has one miserable little town called Roseau, picturesquely situated upon its western side. It is at the foot of the mountains, where they drop into the sea, while a river comes rushing and roaring down the hills through a rugged and broken ravine behind it. The streets are long and spacious and regularly paved, and there is one large square or promenade, used also as a market-place. These streets are now deserted by commerce, however, and the government officials hold court in a community of blacks. There are French Catholic and English churches, a well-kept botanical garden, and a public library.

The population of the island in 1891 was 26,841, or 1370 less than in 1881. The people are mostly black, descendants of the slaves of the days when Dominica was a prosperous French colony, and they still speak a French patois. These, together with the white Dominicans, are mainly French Catholic, and still look upon the British owners as foreigners. The people live almost entirely within a mile or two of the coast, and there are no roads into the interior.

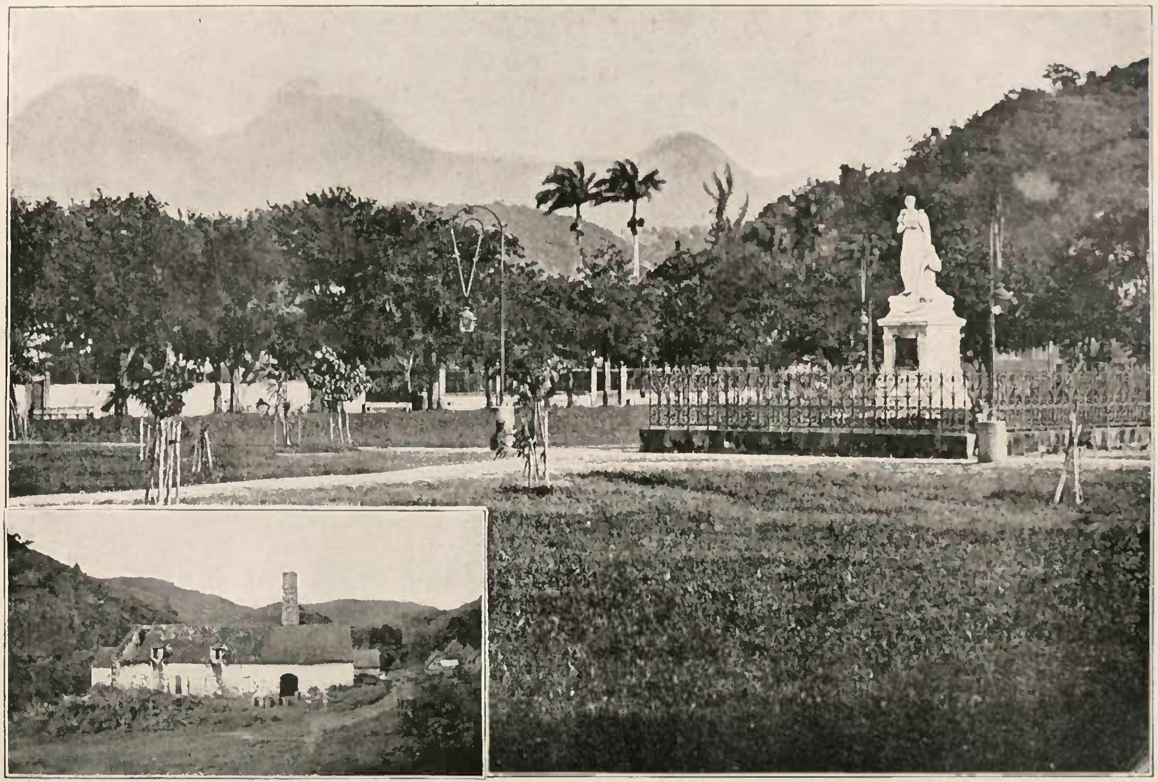
One of the two surviving groups of Caribs, or aborigines of these islands, is not the least interesting part of the Dominican population. These people, about three hundred in number, are now largely mixed with the blacks. They inhabit the mountains of the interior, and make their livelihood by weaving a peculiar basket which is universally used in the island for carrying baggage.

The soil of Dominica is a rich brown mold reeking with dense vegetation, and is capable of growing any tropical produce; and yet, while all but 60,000 of the 186,240 acres are crown lands, which the blacks would gladly till if they could acquire small holdings, agriculture is rapidly dying. There were once many fine sugar-plantations, especially those on the Grand Savanna, twelve miles from Roseau. In the last fifteen years the exports of sugar, rum, and molasses have fallen from seventy-one to fifteen per cent. of the total value of the exports, which in 1896 were valued at $232,750. In the other islands the sugar industry has managed to struggle along, but the Dominican planters have practically given up the struggle. As Froude has stated, its government has struck the island with paralysis, and the contrast it presents with its French neighbors from an economic standpoint cannot be flattering to Great Britain's pride.

The laboring people have largely migrated to Venezuela and to Cayenne. At the docks of both this island and St. Lucia, England's other French possession, schooners can always be found loading with black emigrants. Formerly the slopes of Dominica were covered with coffee-trees, but this industry has practically disappeared. In 1843 there was as much as 1,333,000 pounds of coffee, besides rum, sugar, and molasses. The coffee-culture even reached 2,500,000 pounds in 1828. Now the whole of this industry has vanished, except a few trees set out within recent years. Faint attempts are being made to increase the production of cocoa, limes, and lime-juice, as well as of essential oils.

Dominica was discovered and named by Columbus on a certain Sunday in the year 1493. In 1627 the English took possession of the island, but could not settle it on account of the Caribs. In 1748 the treaty of Aix-la-Chapelle made the island neutral territory between the French and English, but it became a French island in population, although treaties have twice since awarded it to England. In the final settlement between England and France after the imperial wars, Great Britain followed the advice of Rodney and retained this island, so situated between the French possessions of Guadeloupe and Martinique that its loss would greatly debilitate the French power in the West Indies.

Dominica is a presidency within the general government of the Leeward Island federation. The president, or commissioner, has an executive council of seven members; traces of the old constitutional rights still exist in the fact that there is a legislative assembly. The revenues, as in all of the English islands, do not equal the expenditures, and taxes are increasing.



OLD MILL ON ESTATE WHERE JOSEPHINE WAS BORN

STATUE OF JOSEPHINE

MARTINIQUE

CHAPTER XXXII

THE ISLAND OF MARTINIQUE

Beauty of its landscape. A description of the forests. History and present economic condition. The city of St. Pierre. Botanical gardens. Fort-de-France. The fantastic population.

WHILE the ship is still passing in the shadows of lofty Dominica, the passenger can see the mornes of Martinique rising from the vast expanse of sea to the southward. Martinique is the most picturesque in outline and the most interesting of all these wonderful Caribbees—the central bead in the great necklace that encircles the throat of the Caribbean Sea, and the most prosperous of these unhappy isles. Some one has given to the island the poetical name of "Les Pays des Revenants, where nature's unspeakable spell bewitches wandering souls like the spell of a Circe."

This island is second in size only to Guadeloupe, having an area of three hundred and eighty-one square miles. It is completely mountainous, culminating in the peak of Mount Pelée, 4450 feet high. This is usually wrapped in clouds, but now and then it can be seen, and its vast flanks sweep in steep but graceful slopes to the sea. Another peak near the south end is 3950 feet high, while the three-crested Carbet, near the northern coast, rises nearly to the altitude of Mount Pelée.

Every inch of this magic island, except where man has made temporary clearings, is draped in forests—forests which cannot be described, photographed, or painted. The following description by Dr. E. Ruiz gives only a faint idea of the island's wonders:

> Only the sea can afford us any term of comparison for the attempt to describe a *grand bois;* but even then one must imagine the sea on a day of storm, suddenly immobilized in the expression of its mightiest fury. For the summits of these vast woods repeat all the inequalities of the land they cover; and these inequalities are mountains from forty-two to forty-eight hundred feet in height, and valleys of corresponding profundity. All this is hidden, blended together, smoothed over by verdure, in soft and enormous undulations, in immense billowings of foliage. Only, instead of a blue line at the horizon, you have a green line; instead of flashings of blue, you have flashings of green, and in all the tints, in all the combinations of which green is capable—deep green, light green, yellow-green, black-green.
>
> When your eyes grow weary—if it indeed be possible for them to weary—of contemplating the exterior of these tremendous woods, try to penetrate a little into their interior. What an inextricable chaos it is! The sands of a sea are not more closely pressed together than the trees are here—some straight, some curved, some upright, some toppling, fallen, or leaning against one another, or heaped high upon each other. Climbing lianas, which cross from one tree to the other, like ropes passing from mast to mast, help to fill up all the gaps in this treillage; and parasites—not timid parasites like ivy or like moss, but parasites which are trees self-grafted upon trees—dominate the primitive trunks, overwhelm them, usurp the place of their foliage, and fall back to the ground, forming fictitious weeping-willows. You do not find here, as in the great forests of the North, the eternal monotony of birch and fir: this is the kingdom of infinite variety; species the most diverse elbow each other, interlace, strangle and devour each other; all ranks and orders are confounded, as in a human mob. The soft and tender *balisier* opens its parasol of leaves beside the *gommier*, which is the cedar of the colonies; you see the *acomat*, the *courbaril*, the mahogany, the *tendre-à-caillou*, the ironwood; . . . but as well enumerate by name all the soldiers of an army! Our oak, the balata, forces the palm to lengthen itself prodigiously in order to get a few thin beams of sunlight;

for it is as difficult here for the poor trees to obtain one glance from this king of the world, as for us, subjects of a monarchy, to obtain one look from our monarch. As for the soil, it is needless to think of looking at it: it lies as far below us, probably, as the bottom of the sea; it disappeared, ever so long ago, under the heaping of debris, under a sort of manure that has been accumulating there since the creation; you sink into it as into slime; you walk upon putrefied trunks, in a dust that has no name! Here, indeed, it is that one can get some comprehension of what vegetable antiquity signifies: a lurid light (*lurida lux*), greenish, as wan at noon as the light of the moon at midnight, confuses forms and lends them a vague and fantastic aspect; a mephitic humidity exhales from all parts; an odor of death prevails; and a calm which is not silence (for the ear fancies it can hear the great movement of composition and of decomposition perpetually going on) tends to inspire you with that old mysterious horror which the ancients felt in the primitive forests of Germany and of Gaul:

"Arboribus suus horror inest."

Among the trees are the silk-cotton, species of mahogany, and the caleta, or ironwood, a very strong wood. The flora is numerous, and closely related to that of the equatorial zone of South America. The fauna abounds in minor reptiles and insects. There are various kinds of fish and of crab. The manicou and a certain lizard are eaten. The only animal of note is the vicious serpent known as the fer-de-lance, which lurks in the woods, the cane-fields, and the gardens, and whose fatal bite is the only thing upon the island to be dreaded. This snake is from four and a half to seven feet long, has four fangs, at the root of which is secreted the virus, and rudimentary fangs to take the place of the old ones. The mongoos was introduced ten years ago to exterminate the fer-de-lance, but it has not been successful.

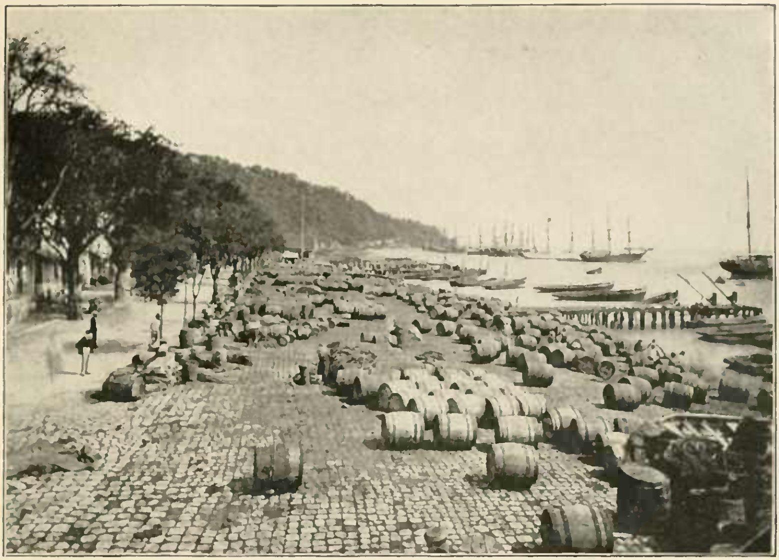
The climate shows three seasons—cool in spring, hot and dry in summer, and hot and wet in autumn and part of winter. The thermometer runs from 76° to 86°, rarely 88°, but there is much humidity. The tropical heat is mitigated by the sea-breezes and fresh winds from the mountains. Violent hurricanes and earthquakes sometimes occur.

The island has no deep harbors, although there are three indentations which afford good shelter. The principal of these is the Bay of Fort-de-France, the capital of the island, and the headquarters of the French admiralty in the West Indies. On the south side are the Grande Anse du Diamante and the Bay du Marin; on the west there are several other small coves. The eastern side is a dangerous shore, where the Atlantic breakers roar and foam in a grand and indescribable surf, which prohibits approach to land.

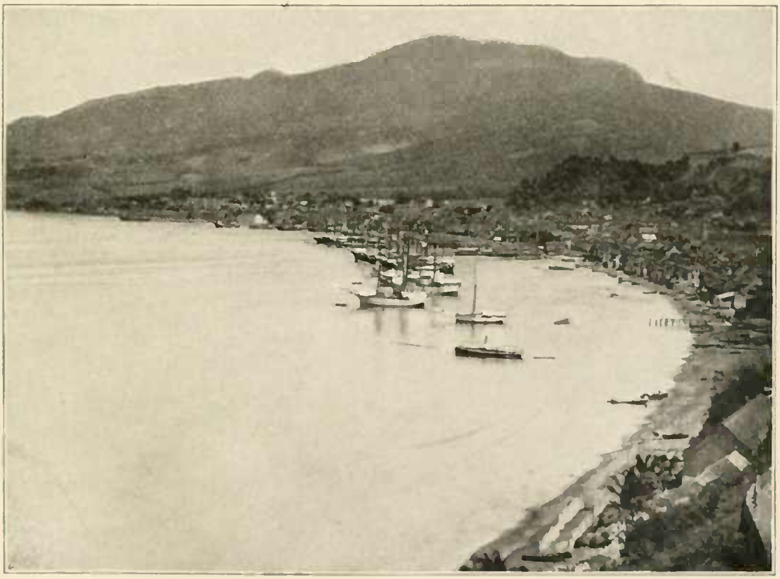
Martinique was originally settled by the French in 1665, and with the exception of twenty-two years, between 1794 and 1816, when it was held by the English, it has always been French. It is now a favored colony of France, constituting a department of the republic, with a governor and excellent administration, sending a senator and two deputies to the National Assembly at Paris.

The imports for 1896 aggregated about $5,721,000, and the exports about $5,358,000. In 1895–96 the United States sent $1,502,332 worth of goods to the island. The food-stuffs of the United States are absolutely necessary to the life of the colony, but the United States takes almost nothing from Martinique in return. Sugar, coffee, cocoa, tobacco, cotton, and rum are the principal products, and all the plantations producing these are in a flourishing state in comparison with those of the adjacent British islands. There are seventeen large central usines, and upward of five hundred ordinary sugar-works.

One fourth the revenue of the island ($1,342,000) is devoted to education. There is a law school at Fort-de-France, with seventy-six students. There are three secondary schools, with four hundred and eighty-seven pupils; a normal school; thirty-eight primary schools, with ten thousand pupils; and thirteen clerical and private schools. There are also two government hospitals, military and



LANDING, ST. PIERRE



ST. PIERRE

MARTINIQUE

civil, and the charge for a native in the last is twenty-five cents a day. At the two prisons the discipline is very mild. France also encourages agriculture by giving a bounty of ten cents for every coffee- and cocoa-tree. This is to prevent the exclusive cultivation of the sugar-cane. There is also a colonial bank, the object of which is to assist the planters; experts determine the value of crops, and the bank advances one third their value. If the obligation is not met by the crops, the bank carries over its claim on the valuation of the next year's crop.

An excellent system of highways has reduced the difficulty of traveling across the rugged island. Transportation is also carried on by small coasting-vessels, although on the eastern side of the island this is especially difficult, as the cargoes have to be carried through the surf on the backs of men, or pushed by swimming negroes in small boats through the water.

France has always nurtured this colony with a tender, loving hand, giving it the best of administrations, helping it freely when in distress, and protecting its industries wherever possible. In 1896 she assisted it to the extent of $659,500.

The large towns are St. Pierre and Fort-de-France, on the leeward side, and Grande Anse, on the windward shore. St. Pierre, on the west side (population 25,382), is the principal city. It is built on cliffs overlooking the bay of the same name, which is nothing more than a very slight curve in the shore-line, vessels having to anchor in the open roadstead. It is a picturesque and beautiful place, with neat public buildings and an interesting creole population. The town has a handsome cathedral and other public buildings. Hearn thus describes it:

> The quaintest, queerest, and the prettiest withal, among West Indian cities; all stone-built and stone-flagged, with very narrow streets, wooden or zinc awnings, and peaked roofs of red tile, pierced by gabled dormers. Most of the buildings are painted in

a clear yellow tone, which contrasts delightfully with the burning blue ribbon of tropical sky above; and no street is absolutely level; nearly all of them climb hills, descend into hollows, curve, twist, describe sudden angles. There is everywhere a loud murmur of running water, pouring through the deep gutters contrived between the paved thoroughfare and the absurd little sidewalks, varying in width from one to three feet. The architecture is that of the seventeenth century, and reminds one of the antiquated French quarter of New Orleans. All the tints, the forms, the vistas, would seem to have been especially selected or designed for aquarelle studies. The windows are frameless openings without glass; some have iron bars; all have heavy wooden shutters with movable slats, through which light and air can enter.

The town has an aspect of great solidity, looking as if it had been hewn out of one mountain fragment instead of constructed stone by stone. Although commonly consisting of only two stories and an attic, the dwellings have walls three feet in thickness. There are also many fountains throughout the city, carrying drinking-water, which comes from another source than that of the water in the gutters. The main street is known as Rue Victor Hugo.

St. Pierre has many images and some fine statues. One of the latter, standing on a height and easily visible from the sea, is a gigantic "Christ," which overlooks the bay; a great white "Virgin" surmounts the Morne d'Orange, to the south of the city, while "Our Mother of the Watch" overlooks the anchorage. There is a great white cathedral with a superb chime of bells. Behind the city is a beautiful cemetery.

The market of St. Pierre is most picturesque. It is in the middle of a square surrounding a fountain, and filled with countrywomen dressed in gorgeous Oriental colors, selling their little products,—oranges, bananas, vanilla-beans, cocoa,—while the fishermen lift their boats bodily out of the water and convert them into stalls, where can be seen a most wonderful fish display, rivaling in colors the tints of the rainbow, and having a hundred queer French names, which it is useless to repeat here, such as the Bon-Dié-manié-moin ("The good God handled me"), etc.

A fine road leads from St. Pierre to the village of Mon Rouge, situated two thousand feet above the sea. In the village is a shrine to the Virgin, which is visited by the inhabitants. Along this road are many shrines and little chapels with crucifixes and statues, with lamps burning before them. This road leads by the beautiful botanical garden, and passes many fine and solid stone bridges.

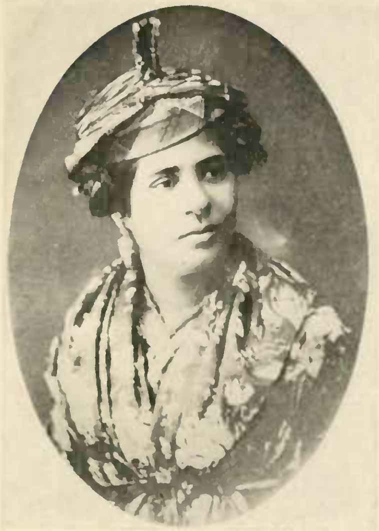
The Jardin des Plantes is one of the famous places of the world, although now somewhat neglected and overrun by the native foliage. One of Hearn's most beautiful word-pictures is that which he gives of this lovely spot:

> The Jardin des Plantes is not absolutely secure from the visits of the serpent; for the trigonocephalus goes everywhere, mounting to the very summits of the cocoa-palms, swimming rivers, ascending walls, hiding in palm-thatched roofs, breeding in bagasse-heaps. But, despite what has been printed to the contrary, this reptile fears man and hates light; it rarely shows itself voluntarily during the day. Therefore, if you desire to obtain some conception of the magnificence of Martinique vegetation, without incurring the risk of entering the high woods, you can do so by visiting the Jardin des Plantes, only taking care to use your eyes well while climbing over fallen trees or picking your way through dead branches. The garden is less than a mile from the city, on the slopes of the Morne Parnasse; and the primitive forest itself has been utilized in the formation of it, so that the greater part of the garden is a primitive growth. Nature has accomplished here infinitely more than art of man (though such art has done much to lend the place its charm), and until within a very recent time the result might have been deemed, without exaggeration, one of the wonders of the world. . . .
>
> A moment after passing the gate you are in twilight, though the sun may be blinding on the white road without. All about you is a green gloaming, up through which you see immense trunks rising. . . . As you proceed, the garden on your right deepens more and more into a sort of ravine; on your left rises a sort of foliage-shrouded cliff; and all this in a beautiful crepus-

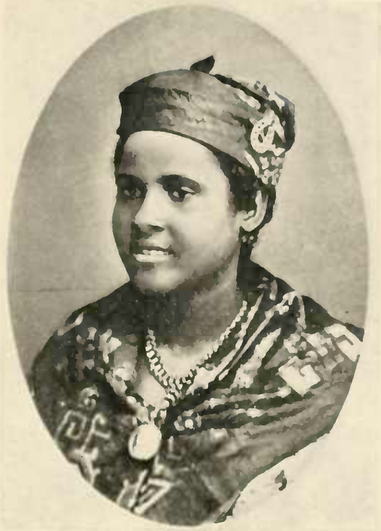
cular dimness, made by the foliage of great trees meeting overhead. Palms rooted a hundred feet below you hold their heads a hundred feet above you; yet they can barely reach the light. . . . Farther on the ravine widens to frame in two tiny lakes, dotted with artificial islands, which are miniatures of Martinique, Guadeloupe, and Dominica. These are covered with tropical plants, many of which are total strangers even here; they are natives of India, Senegambia, Algeria, and the most eastern East. Arborescent ferns of unfamiliar elegance curve up from path-verge or lake-brink, and the great *arbre-du-voyageur* outspreads its colossal fan. Giant lianas droop down over the way in loops and festoons; tapering green cords, which are creepers descending to take root, hang everywhere; and parasites with stems thick as cables coil about the trees like boas. Trunks shooting up out of sight, into the green wilderness above, display no bark; you cannot guess what sort of trees they are; they are so thickly wrapped in creepers as to seem pillars of leaves. Between you and the sky, where everything is fighting for sun, there is an almost unbroken vault of leaves, a cloudy green confusion in which nothing particular is distinguishable.

You come to breaks now and then in the green steep to your left—openings created for cascades pouring down from one mossed basin of brown stone to another, or gaps occupied by flights of stone steps, green with mosses, and chocolate-colored by age. These steps lead to loftier paths; and all the stonework,—the grottoes, bridges, basins, terraces, steps,—are darkened by time and velveted with mossy things. . . . It is of another century, this garden; special ordinances were passed concerning it during the French Revolution; it is very quaint; it suggests an art spirit as old as Versailles, or older; but it is indescribably beautiful even now.

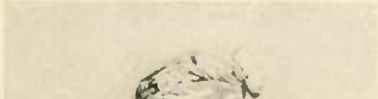
. . . At last you near the end, to hear the roar of falling water —there is a break in the vault of green above the bed of a river below you; and at a sudden turn you come in sight of the cascade. Before you is the Morne itself; and against the burst of descending light you discern a precipice-verge. Over it, down one green furrow in its brow, tumbles the rolling foam of a cataract, like falling smoke, to be caught below in a succession of moss-covered basins. The first clear leap of the water is nearly seventy feet. . . . Did Josephine ever rest upon that shadowed bench



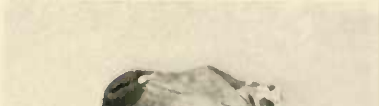
FILLE DE COULEUR



FRENCH NEGRESS



NEGRO WOMAN



MULATTO GIRL

TYPES OF WOMEN, MARTINIQUE

near by? . . . She knew all these paths by heart; surely they must have haunted her dreams in the aftertime!

The beautiful garden is now little more than a wreck of what it once was; since the fall of the empire it has been shamefully abused and neglected. Some agronome, sent out to take charge of it by the republic, began its destruction by cutting down acres of enormous and magnificent trees,—including a superb alley of palms,—for the purpose of experimenting with roses. But the rose-trees would not be cultivated there, and the serpents avenged the demolition by making the experimental garden unsafe to enter; they always swarm into underbrush and shrubbery after forest-trees have been cleared away. . . . Subsequently the garden was greatly damaged by storms and torrential rains; the mountain river overflowed, carrying bridges away and demolishing stonework. No attempt was made to repair these destructions; but neglect alone would not have ruined the loveliness of the place—barbarism was necessary! Under the present negro-radical régime, orders have been given for the wanton destruction of trees older than the colony itself; and marvels that could not be replaced in a hundred generations were cut down and converted into charcoal for the use of public institutions.

The capital, Fort-de-France, formerly Fort Royal, is situated on a beautiful but shallow bay near the south end of the west side of the island. The town, though secondary in commercial importance to St. Pierre, is the military center and arsenal of the French Antilles, the rendezvous of the navy, the terminus of the French transatlantic steamships and West Indian cable system. It was half ruined by an earthquake in 1839, and nearly consumed by a fire in 1890. After the last event the inhabitants offered a bounty of fifty per cent. of the value of the old buildings to help rebuild, and eight hundred thousand dollars has been thus spent. Among the several interesting statues adorning its public gardens the most noted is that of the Empress Josephine, erected by the people of the island in honor of her nativity.

Throughout the island there are many little villages, such as Le Montine, Petit Bourg, Le François. Grande

Anse is situated across the high mountain ranges, and is reached by a picturesque road from St. Pierre, which rises into the higher passes, and is shaded by tree-ferns, accompanied by graceful bamboo and arborescent grass. It is in a region of black stones, out of which the houses are built. Black volcanic boulders dot the hillsides, and even the sands of the beach are black, and full of valuable magnetic iron. The village is a small place, principally noted for the wonderful expertness of its men in swimming the breakers, and for the beauty of its female *porteuses*—young girls who carry burdens upon their heads. At Diamond Rock there is the tomb of the commander of one of the English ships, and the remains of the cistern which furnished the English with water while the rock was fortified by them in 1844.

Not less interesting than the natural features are the inhabitants of this island, distinguished by beauty, thrift, and a remarkable and peculiar individuality. In 1895 they numbered nearly five hundred to the square mile, aggregating 187,692 people, most of whom, except 1307, were either blacks or members of that remarkable mixed race which distinguishes the island. The mixed populations show every variety of color and type,—mulattos, copre, chabin, and mâtes,—but they are generally healthy and thriving. Traces of Caribbean blood are seen in their color, physiognomy, and physical characteristics. Hearn thus describes the population of Martinique:

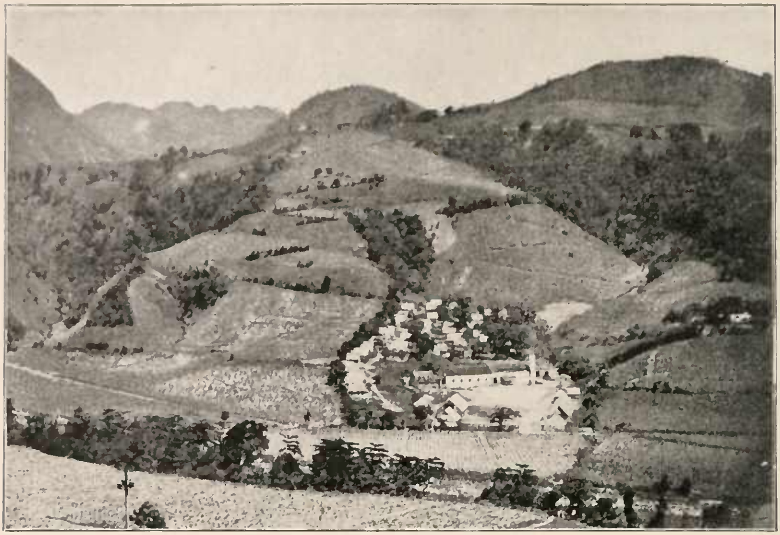
> Fantastic, astonishing—a population of the "Arabian Nights." It is many-colored, but the general dominant tint is yellow. . . . Straight as palms, and supple and tall, these colored women and men impress one powerfully by their dignified carriage and easy elegance of movement. All, or nearly all, are without shoes. . . . Perhaps the most novel impression of all is that produced by the singularity and brilliancy of certain of the women's costumes. Some of these fashions suggest the Orient; they offer beautiful audacities of color contrast; and the full-dress coiffure, above all, is most striking. It is an immense Madras handkerchief, which is

folded about the head with admirable art, like a turban; one bright end, pushed through at the top in front, being left sticking up like a plume. Then this turban, always full of bright canary-color, is fastened with golden brooches, one in front and one at either side. As for the remainder of the dress, it is simple enough: an embroidered, low-cut chemise with sleeves; a skirt, or jupe, very long behind, but caught up and fastened in front below the breasts, so as to bring the hem everywhere to a level with the end of the long chemise; and finally a foulard, or silken kerchief, thrown over the shoulders. These jupes and foulards, however, are exquisite in pattern and color: bright crimson, bright yellow, bright blue, bright green, lilac, violet, rose, sometimes mingled in plaidings or checkerings or stripings; black with orange, sky-blue with purple. And whatever be the colors of the costume, which vary astonishingly, the coiffure must be yellow—brilliant, flashing yellow; the turban is certain to have yellow stripes or yellow squares. To this display add the effect of costly and curious jewelry: immense ear-rings, each pendant being formed of five gold cylinders joined together, cylinders sometimes two inches long and an inch at least in circumference; a necklace of one or many rows of large, hollow gold beads, called *collier-choux.*

But few are thus richly attired; the greater number of the women, carrying burdens on their heads,—peddling vegetables, cakes, fruit, ready-cooked food, from door to door,—are very simply dressed in a single plain robe of vivid colors (*douillette*), reaching from neck to feet, and made with a train, but generally girded well up so as to sit close to the figure and leave the lower limbs partly bare and perfectly free. These women can walk all day long up and down hill in the hot sun, without shoes, carrying loads of from one hundred to one hundred and fifty pounds on their heads; and if their little stock sometimes fails to come up to the accustomed weight, stones are added to make it heavy enough. With the women the load is very seldom steadied with the hand. The head remains almost motionless; but the black, quick, piercing eyes flash into every window and doorway to watch for a customer's signal. These women also carry the produce across mountain from plantation to seaport.

Cornilliac ascribes the wonderful beauty of the Martinique women to the admixture of Carib blood with that of the Europeans and blacks. Both men and women are often so perfect anatomically that the artist wishing to create a "Mercury" or "Venus" need only take a cast of such a body, without making one modification from neck to heel.

There is great love of the mother-country among all classes. This is due to the liberty of the press and political freedom. Laborers in Martinique receive wages of from fifteen to nineteen cents a day; house-servants $1.52 to $2.87 a month; mechanics seventy-six to ninety-five cents a day; and bookkeepers from $43 to $55 a month. The women do most of the hard work.



PLANTATIONS NEAR SOUTH END

ONE OF THE PITONS

ST. LUCIA

CHAPTER XXXIII

ST. LUCIA, ST. VINCENT, THE GRENADINES, AND GRENADA

England's stronghold in the West Indies. The Pitons. Agricultural depression. Recollections of Rodney.

ST. LUCIA was the Ste. Alouise of the French. This "wildly beautiful island," as it is called by Montgomery Martin, lies twenty-four miles south of Martinique and twenty-one miles northeast of St. Vincent. It has the same rugged aspect as the other large Caribbees, but is noted as one of the loveliest, if not the loveliest, in the chain of islands to which it belongs. It is forty-two miles long, twenty miles broad, has a coast-line of one hundred and fifty miles, and embraces two hundred and thirty-three square miles. Like Guadeloupe, Montserrat, Dominica, and Martinique, it is a mass of high mornes, with steep bluffs along the sea and steep acclivities leading up to the cloud-wrapped summits, the highest of which, La Soufrière, at the south end of the island, is four thousand feet in altitude. Near by there is another mountain, the Piton des Canaris, three thousand feet high. Other high summits occur along the entire length of the island, but are always wrapped in a silky veil of mist. The so-called "crater" of the Soufrière is about one thousand feet up the mountain. It is composed of old volcanic tuff and cinder, coated with sulphur, and contains a few boiling springs.

Of all the examples of the wonderful acute configuration of the Caribbees, the Pitons, at the southern end of St. Lucia, are the most remarkable. These are two immense pointed peaks which rise from the sea-level like great dragons' teeth to 2720 and 2680 feet respectively, seeming as vertical as the peaks of the Matterhorn. Their slopes are fully sixty degrees, and they are covered densely by vegetation. These peculiar forms are not craters, but may be old volcanic stocks. The beautiful coves and bays are also very picturesque; dense forests, fertile valleys, verdant plains, frowning precipices, lively rivers, and deep ravines, the whole covered by a perfect mass of deciduous vegetation, make up the wonderful landscape.

The vegetation and climate are very similar to those of Martinique. In fact, St. Lucia, Martinique, Dominica, Basse-Terre (Guadeloupe), and Montserrat are all so much alike in configuration, climate, and vegetation, that I cannot recall a single distinguishing feature on any of them. They constitute the summits of a continuous mountain—a great sierra made up of the same masses of old volcanic tuffs and basalts, just as one of the long sierras of our Southwest deserts would appear if its lower passes were flooded.

St. Lucia, like Dominica and Martinique, is a French island which has several times passed into English possession, finally becoming a permanent holding of the English after the imperial wars, on account of its excellent harbor. It is now under the general government of the Windward Islands, with a local legislative council, and is the strictest pattern of a crown colony, which has the usual excellent administrative features, accompanied by high taxation and economic decay. There are thirty-seven primary schools in the island, but a great drawback to educational progress is the French patois spoken by the natives.

The soil, like that of all the other Caribbees, is rich beyond description; one third of the island is covered with superb forests, inhabited, like those of Martinique, by the deadly fer-de-lance. Agriculturally St. Lucia shows the same depression everywhere visible in the English islands. The sugar industry has almost been eliminated within the last ten years. Only a small portion of the total cultivable acreage is under cultivation. The forty-six thousand black inhabitants, who are French in speech and habit, live largely on such pickings as they can gather from the coaling of ships, public works, and their little yam-patches. Many of them leave the island to seek employment in Cayenne and other places. The revenues are not sufficient to meet the expenditures, and the high taxes are already more than the people can meet. Sugar-planting is dying out, and this beautiful island, once as fair as Martinique, will soon sink into the economic condition of Dominica.

St. Lucia is chiefly noted for possessing the only deep harbor, except St. Thomas and Trinidad, in the Lesser Antilles, and for being the only one of the Caribbee Islands which has a completely protected landlocked basin, where ships can go alongside a dock. This is an oblong bay surrounded on all sides by high hills, upon which England is mounting some of the strongest batteries in the world. The town of Castries is a small place built on made ground on the interior side of the harbor, at the foot of its steep surrounding hills. It looks quite diminutive in comparison with the overtowering natural surroundings. Its population seems to consist mostly of negro women, who coal the passing ships. There is a handsome market-house, a pretty botanical garden, and a comfortable reading-room and library. The whites all live upon the highlands around the harbor, the low grounds being considered unhealthful.

For the past few years England has been making a most formidable naval station here, and the American Jingo press has often called attention to it. Castries is also the chief coaling-station of the British navy in the West Indies, and the imperial troops are to be concentrated here and in Jamaica.

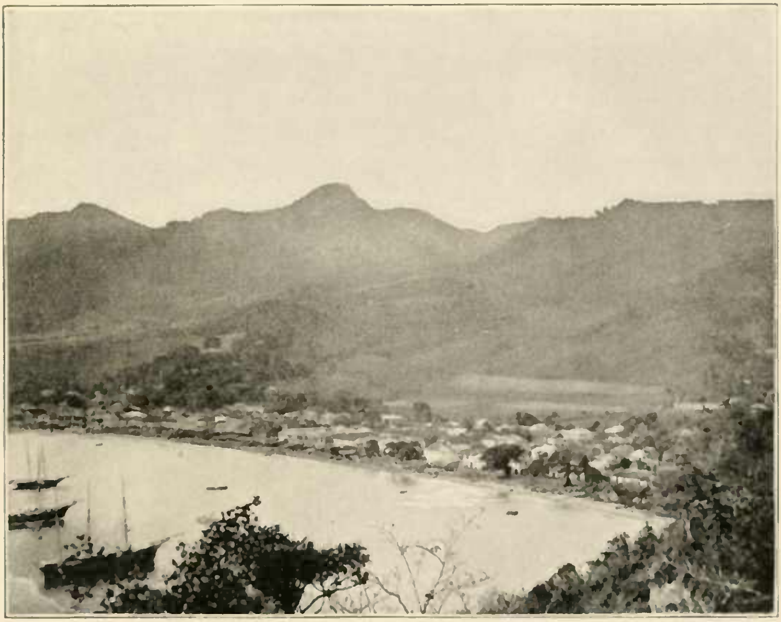
The waters off this island are famous to all Englishmen as the scene of what they consider one of the greatest battles of all naval history, although they have never given it a name other than "Rodney's victory." As our ship passed by these waters, every Briton hung over the rail with intense interest, recalling this great conflict which took place on April 12, 1782, between Admiral Rodney and the French admiral De Grasse. This battle, which is fully described in Captain Mahan's book, was really one of the decisive events of the world's history, for it not only reduced the French to a secondary position in the West Indies, but established England's great position as a modern sea-power. Furthermore, it saved Jamaica to England, and the circumstances leading up to it indirectly freed the American colonies, for had not England been so occupied during the American Revolution with her struggles against the French in the West Indies, which were then considered of so much greater value than the American colonies, there is little doubt that our own cause would have been lost. In the English mind this victory, which occurred simultaneously with the surrender of Yorktown, completely overshadowed the latter event.

In the peace that followed St. Lucia became a British possession, but the erstwhile French citizens made things lively for their new masters. In a revolution they recovered the whole of the island with the exception of two military posts, and it required Lord Abercrombie with twelve thousand British soldiers to restore quiet.

The whole southern half of the Caribbean circle is English,—St. Lucia, St. Vincent, and Grenada are three of a kind,—while the little Grenadines are largely uninhabited islets.

It has been said that four islands among the Caribbees realize one's ideals—Guadeloupe, Dominica, Martinique, and St. Vincent. "The first is grand and gloomy; the second is somber in its mountains, but breaks out into smiling tracts of cultivated land; the third combines the

GEORGETOWN



KINGSTOWN

ST. VINCENT

features of the first two and adds the element of a large and picturesque population; while St. Vincent has all the natural wonders and beauties of the other three, and a certain air of delicate culture which is entirely its own." Furthermore, it is an agreeable place to spend a week or two.

St. Vincent is a single island with no outlying rocks or islets. It is seventeen miles long and ten miles broad, with an area of one hundred and thirty-one square miles, and a population of nearly fifty thousand people. A ridge of mountains passes along the middle through its whole length, the highest of which, the Soufrière, is at the north extremity. Its scenery is slightly different from that of the other Caribbees. There are more extensive open views,—slopes and valleys,—while vast areas of more recent cinder and lava indicate that later volcanic action has taken place.

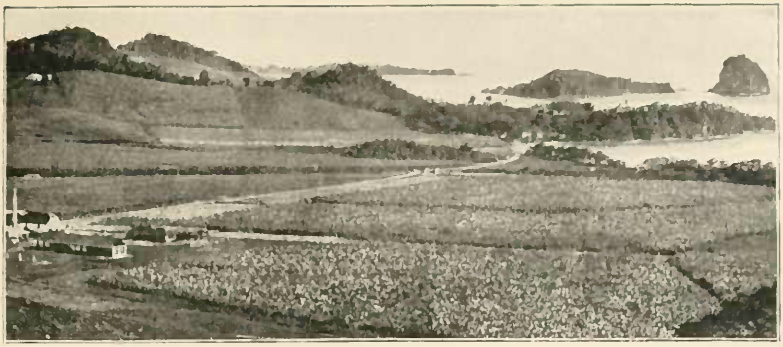
The island culminates in the vast crater of Morne Garon, which was the scene of a tremendous eruption in 1812, when the earthquakes which for two years had terrified the West Indian region and the South American coast culminated in an explosion which was a most devastating and far-reaching cataclysm, being rivaled within recent years only by the explosion of Krakatau, in the Straits of Sunda. In Caracas ten thousand people were buried in a single moment, and ruin was wrought along the entire line of the Andes by earthquakes accompanying the event. The Soufrière of St. Vincent vomited vast clouds of dust, which darkened the sun for an entire day and spread over a hundred miles of sea and land. This eruption changed the configuration of the island and destroyed its eastern end. The present crater, formed at that time, is a half-mile in diameter and five hundred feet deep, and is now a beautiful lake walled in by ragged cliffs to a height of eight hundred feet. Since 1812 the volcanic forces have been quiescent, and nature has repaired the ruin and made the island more beautiful than ever.

Kingstown, the capital, with about eight thousand inhabitants, is on the southwest side, the town stretching along a lovely bay, with mountains gradually rising behind in the form of an amphitheater. Its red-roofed houses and a few fine stone structures show picturesquely through the palm-groves. Behind these are the governor's house and botanical buildings, overlooking the town. Three streets, broad and lined with good houses, front the water. On these are stone buildings occupied as a police station and government stores. There are many other intersecting highways, some of which lead back to the foot-hills, from which good roads ascend the mountains.

In St. Vincent we meet the same story of the decay of the sugar industry; here it is on the verge of extinction. No improvements have been introduced in the manufacture, and the canes have in recent years suffered severely from disease. No industry has taken its place. Arrowroot is next in importance to sugar, but its price has also declined, adding to the depression. It is grown in fields which are planted like Indian corn when sown for fodder. When matured it is dug up and taken to a mill, where the roots are broken off, ground, washed, and strained, and the mass allowed to settle for a few days. The product is then placed on wire frames with different-sized meshes to dry. It gradually sifts down through these, and is then barreled for shipment. In recent years it has brought about five dollars a barrel, or eight cents per pound; formerly it brought from forty to sixty cents.

Wages are very low and constantly being reduced, and there is a lamentable want of employment even at the price of less than a shilling a day for able-bodied men, who are constantly emigrating, leaving the women and children to shift for themselves. There are few Caribs remaining in St. Vincent, the remnant of a large number that lived here until 1796, when Great Britain deported five thousand of them to the coast of Honduras.

Between St. Vincent and Grenada, instead of open water, we find several hundred little rocky islands, all disposed



SUGAR-PLANTATION, FORT DAVINET

WINDWARD COAST

MARKET

ST. VINCENT

in the trend of the larger Caribbees, but offering an endless variety in shape and configuration. Kingsley has summarized their essential features as follows:

> On leaving St. Vincent, the track lies past the Grenadines. For sixty miles, long low islands of quaint forms and euphonious names—Becquia, Mustique, Canonau, Carriacou, Île de Rhône—rise a few hundred feet out of the unfathomable sea, bare of wood, edged with cliffs and streaks of red and gray rock, resembling, says Dr. Davy, the Cyclades of the Grecian Archipelago; their number is counted at three hundred. The largest of them all is not eight thousand acres in extent, the smallest about six hundred. A quiet, prosperous race of little yeomen, besides a few planters, dwell there; the latter feeding and exporting much stock, the former much provisions, and both troubling themselves less than of yore with sugar and cotton. They build coasting-vessels, and trade with them to the larger islands; and they might be, it is said, if they chose, much richer than they are—if that be any good to them.
>
> The steamer does not stop at any of these little sea-hermitages, so that we could only watch their shores; and they were worth watching. They had been, plainly, sea-gnawn for countless ages, and may, at some remote time, have been all joined in one long ragged chine of hills, the highest about one thousand feet. They seem to be, for the most part, made up of marls and limestones, with trap-dikes and other igneous matters here and there. And one could not help entertaining the fancy that they were a specimen of what the other islands were once, or at least would have been now, had not each of them had its volcanic vents to pile up hard lavas thousands of feet aloft, above the marine strata, and so consolidate each ragged chine of submerged mountain into one solid conical island, like St. Vincent at their northern end, and at their southern end that beautiful Grenada to which we were fast approaching, and which we reached, on our outward voyage, at nightfall, running in toward a narrow gap of moon-lit cliffs, beyond which we could discern the lights of a town.

The beautiful island of Grenada is the most southern of the Caribbean chain. It is eighteen miles long and seven miles broad, and contains one hundred and thirty-three square miles—two more than St. Vincent. It is surmounted by lofty volcanic craters, among which is a picturesque lake more than two miles in circumference and thirty-two hundred feet above the sea. The capital, St. George, has a fine harbor with a walled fort, and pretty houses and churches situated on the hillsides. In the northwest are successive piles of conical hills or continuous ridges covered with vast forest-trees and brushwood. There are many fertile valleys interspersed with numerous rivulets.

Grenada is the most British of all the British islands, for, although owned by France until 1762, it has flown the English flag since then. The island is the capital or headquarters of the Windward government, which comprises the colonies of St. Lucia, St. Vincent, the Grenadines, and Grenada, and has all the charms of British official colonial society. Here also we hear the cry of the good old days that are no more, and the lamentations of the decay that is. Sugar, for which the island was once famous, is now grown only in sufficient quantities to supply the natives with cane to chew or rum to drink, less than one hundred thousand dollars' worth being exported annually. Cocoa is the chief product, but this is falling off in price. The expenditures are increasing on account of enlarged educational institutions and public works—roads, bridges, and water-works, which the English must always have.

The population in 1891 numbered fifty-four thousand, or four hundred and fifteen to the square mile, of whom at least four fifths are a contented lot of negro peasantry, owning their own homes and growing their little crops of yams and sweet potatoes. Like St. Vincent, it presents more open country interspersed between the rugged mountains than is found in the northern Caribbees, and is of a more recent volcanic character. The English will tell you that it is the loveliest of all the islands; but this is told of them all.

The island is a delightful spot, and the English proprietors a hospitable people. If the reader should visit the tropics, a brief stay here would be well rewarded.

ST. GEORGE'S HARBOR

ST. GEORGE

GRENADA

CHAPTER XXXIV

THE SOUTH AMERICAN ISLANDS

Trinidad, Tobago, and Curaçao. The peculiar geographical features of Trinidad. Port of Spain. Political conditions. Population and people. The island of Tobago. Curaçao, the capital of the Dutch West Indies.

GRENADA is the most southern of the Caribbean chain. The other islands of the Lesser Antilles to the southward, and adjacent to the north coast of South America, are, in their natural features, fragments of the latter continent which have become detached from the mainland by the processes of time. They are continental in their diversity, and, were they not insular in outline, they would be considered as belonging to the South American rather than the West Indian realm. Only a few words can be said concerning them.

These islands succeed one another in elongated arrangement like those of the other greater groups, but trend in an east-and-west direction, parallel to the adjacent continental coast, extending through seven degrees of longitude, from Tobago, on the east, to the rocky islets known as the Monks, at the entrance to the great Gulf of Maracaibo, on the west.

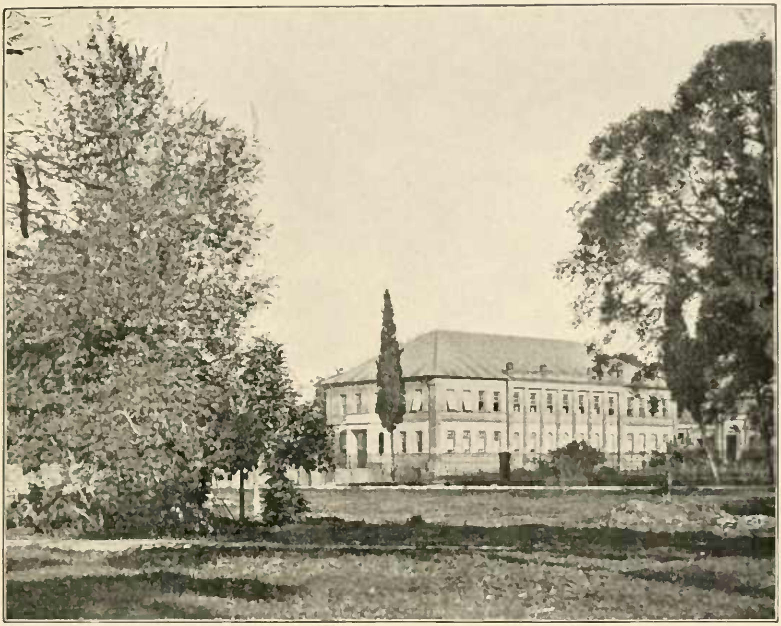
Of this group Trinidad is by far the largest and most interesting, although Tobago, Margarita, Tortuga, Los

Roques, Buen Ayre, Curaçao, and Oruba are of considerable size, each possessing an area only a little less than that of the average Caribbee. Here, too, is multiplicity of nationalities. Tobago and Trinidad are British; Buen Ayre and Curaçao Dutch; and most of the others, which are not worthy of further mention, are Venezuelan.

Trinidad lies just south of the eastern end of the main chain of South American islands. It is separated from the main continent by the Gulf of Paria, which has two outlets on the south and northwest, known as the Mouth of the Serpent and the Mouth of the Dragon respectively, which are only a few miles wide, and across which the mainland is plainly visible. Trinidad is merely a severed fragment of the mainland, having exactly the same relations to it that Long Island has to the adjacent coast of New York and New England.

The island is quadrangular in outline and embraces an area of 1754 square miles—nearly as large as all the Caribbee Islands combined. The volcanic appearance which marks the configuration of the Caribbee Islands is missing, and Trinidad resembles the continent. It is crossed in east-and-west directions by great mountain ranges with rivers and lakes, and is diversified by beautiful plains and valleys. On the east it faces the Atlantic, the straight north shore lies against the Caribbean Sea, while to the west there is the great bulb-shaped Gulf of Paria. These waters, instead of being bright blue, are a muddy yellow, filled with sediments from the adjacent land. There are a few low wooded islands in this gulf. The equatorial current, as it passes from the Atlantic into the Gulf, rushes with great velocity through the Serpent's Mouth.

Trinidad has been called Great Britain's loveliest West Indian colony, but there is nothing West Indian about it. It is thoroughly South American. The flora, rocks, animals, and geology all partake of the adjacent Cumaná peninsula, and it should be considered in the same category as British Guiana.



PUBLIC OFFICES

PORT OF SPAIN

TRINIDAD

The capital and chief city of the island is Port of Spain, situated on a beautiful harbor facing the Gulf of Paria, which, were it not for its shallowness, would hold the shipping of the world. The larger vessels are loaded by lighters. It was into this harbor that Columbus first came, when he named the island Trinidad, in fulfilment of a vow he had made to the Holy Trinity. The city is elevated about four hundred feet above the level of the sea, from which it is some six miles distant, and is a pretty, hilly town of about twenty thousand inhabitants. It is a curious combination of English, French, and Spanish buildings, arranged on broad streets and with many squares or plazas. Street-cars traverse the chief avenues. The city has been made somewhat unattractive by numerous fires; some of these have been very extensive, especially those of 1884 and 1891. The governor's house, as in all the English colonies, stands in large grounds out of town, at the foot of the mountains. It is surrounded by beautiful botanical gardens, which are especially rich in nutmeg-, cinnamon-, and other spice-trees, and every known species of palm-tree. Immense ceibas, almonds, and orange-trees also ornament the grounds.

It is said that, owing to its exposure to the combined breezes of the sea and mountain, with a most delicious climate, Port of Spain is a very healthful place, while its situation in a rich and fertile country, its extended views, the beauty of its women, and the hospitality of its inhabitants, make it a most attractive town. To this place come eighteen steamers a month from England, six from the United States (four steamers of the French line, two of the Quebec), and two from Holland; and there are seven steamers to Venezuela. There is also an extensive carrying-trade between Port of Spain and Venezuela. Gold and other products of the country are reshipped from Trinidad to Europe, and goods from Europe are sent to Trinidad for distribution in Venezuela.

There are several smaller places, Princestown and San

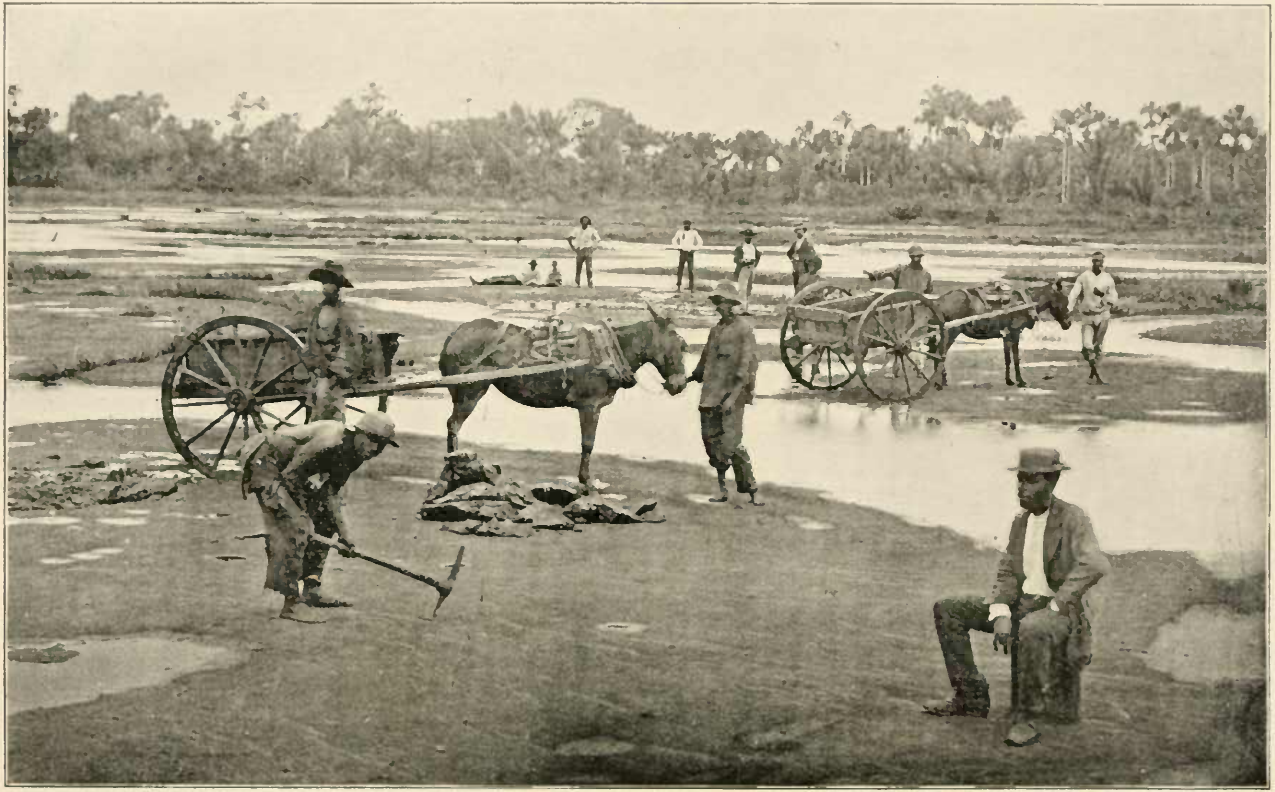
Fernando being the most notable. La Brea is the shipping-place of the Trinidad asphalt.

The Spaniards robbed the island of its inhabitants in the earlier centuries and made them slaves. In the second century of its discovery Sir Walter Raleigh touched at the island and tarred his ships with the black asphalt found native here, which now supplies the pavement-material for so many American cities. Two centuries of conflict between England, France, and Spain ensued (in which the natives suffered the most), until 1797, when the English came into permanent possession. Trinidad is historically interesting as the place where Cortez parted from Governor Velasquez, with all the vessels and men fitted out for the conquest of Mexico.

Politically, Trinidad is another British colony, with its governor, staff, and legislature, constituting a distinct government from the other West Indies. Like other British colonial governments, it has good roads, good police, good schools, good public works and institutions of all kinds, together with high taxation and a large public debt. There are two colleges and one hundred and ninety-eight public schools. There are fifty-four and a quarter miles of railway in operation on the island, and thirty more in process of construction. These are owned by the government.

The principal exports are fifty thousand tons of sugar yearly, cocoa, Angostura bitters (of which rum is the basis), molasses, asphalt, and cocoänuts, valued at $9,819,244, of which one half the value is for sugar. The exports of asphalt to the United States in 1897 amounted to 109,243 tons.

About one fourth of the soil is cultivated. A majority of the sugar-estates are provided with modern machinery, while the Usine St. Madeleine is the largest sugar-factory in the British West Indies. The Agricultural Society and Chamber of Commerce declare the sugar industry to be "undoubtedly in danger of extinction."



PITCH LAKE, TRINIDAD

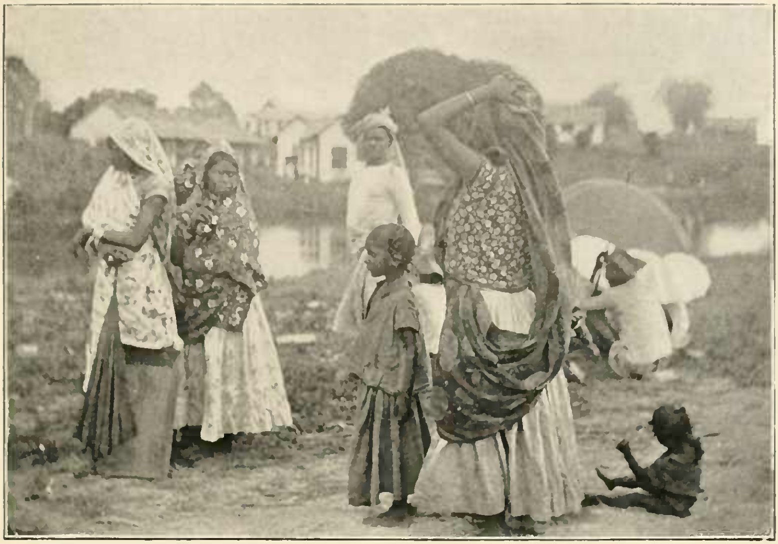
One of the chief sources of value to Trinidad is the asphalt lake, which supplies the material for American pavements. This is a plain of one hundred acres more or less, situated about sixty miles south of Port of Spain. The lake has a black surface, with inky pools of soft bitumen and spots of yellow bubbles and water-cracks. The surface is yielding, and a strong odor of sulphureted hydrogen prevails. Anything more black and repulsive can hardly be imagined. It has been likened to a vast asphalt pavement with many holes filled with inky waters in which swim ugly fish and black beetles. When pieces of pitch are taken from the lake, nature at once begins to repair the damage, and in twenty-four hours the hole is filled again. The tract is leased by the government to an American asphalt company for forty-one years, and yields a revenue of $142,500 a year to the government. The company has established machinery near the lake to crush and purify the pitch, which comes from the lake in carts. It is formed in blocks, packed in barrels or transported in bulk by elevated trolleys direct to the ships at La Brea.

The population of Trinidad is two hundred and forty-five thousand people, and it is a medley of English, French, Spaniards, negroes, and coolies. The English go there to make money and go home again. Old families have but few representatives left. The Caribbean natives have long since vanished, and negroes and East India coolies have taken their place, and now constitute four fifths of the population.

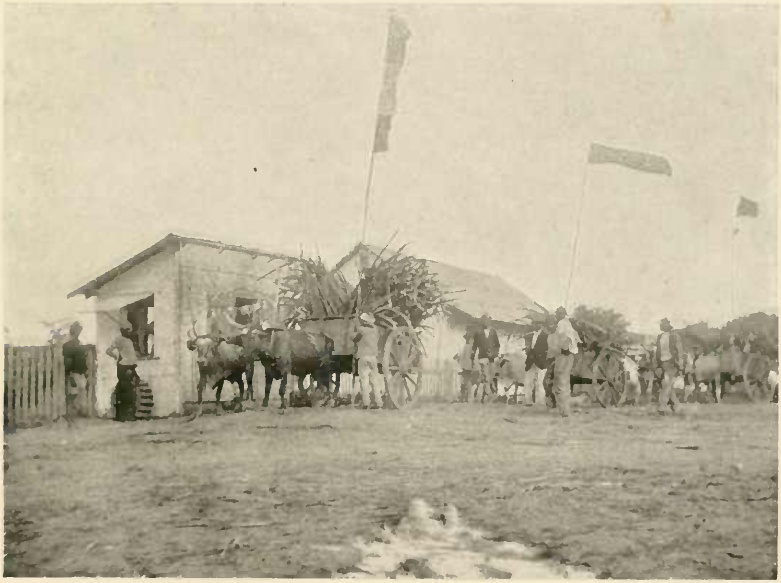
The chief laboring element of Trinidad are the coolies, of whom there are ninety-eight thousand upon the island. They are brought from Hindustan, under contract, at the expense of the colony, and under care of the government agents. They are apprenticed to owners for five years. The Hindus are of low caste and do not amalgamate with the blacks. They dwell by themselves in little huts of a peculiar type, and maintain their own dress, priests, and religious ceremonials. Rice, cassava-roots, and fruits supply their scanty meals. They are bound by law to work nine hours a day for two hundred and eighty days in the year, and receive a regular rate of wages, usually less than sixpence a day. The law concerning this apprenticed labor is very strongly enforced both upon the coolie and his employer. Each estate employing coolies is obliged to provide hospitals under the inspection of medical visitors, and all the labor arrangements are subject to the inspection of government agents, who visit the estates constantly and report each week to the agent-general of immigrants; he in turn reports to the governor, who has absolute authority to cancel the contract and remove any and all the coolies from an estate. When the time of indenture is ended the coolie is entitled to transportation back to his native land. In lieu thereof he can make a new contract for a year, or he can remain and work wherever he chooses, and receive the amount of his return passage in cash. He is also allowed the option of a government grant of ten acres of land instead of return passage-money. Low as their wages are, most of them accumulate considerable sums, which are often converted into silver bracelets and bangles for the arms and ankles of their women, who thus preserve the family treasure. Some have settled permanently on the island, and others have returned for a second term of service, bringing friends and relatives with them. The system is a good one for the country, and it may be remarked that it is similar to that which prevailed in Virginia, South Carolina, Georgia, and Jamaica before the American Revolution, when the poor people of England were similarly apprenticed to Southern planters.

There is a steady flow of negro population from the other British West Indies to Trinidad, especially from St. Vincent and Barbados.

Tobago, about seventy miles to the southeast of Grenada, is the most eastern island of the South American group. Its area is one hundred and fourteen square miles, and it is diversified with hills and vales, and is equal in rich-



COOLIES



COOLIE HOUSES

TRINIDAD

ness of production to the other islands. Two thirds of Tobago are still covered with primeval forest, comprising many varieties of hard-wood and ornamental trees. The climate is remarkably healthful, and the air very fine and pure. The scenery is beautiful, and delightful rides can be taken. Horses can be easily obtained at very moderate charges.

This is another island where the former heavy production of sugar has ceased. The people, since the great collapse in sugar in 1885, have taken to diversified agriculture and the raising of sheep and horses. Tobacco and cotton have been lately introduced.

Tobago's welfare is intimately associated with that of Trinidad, the two islands being politically and commercially connected. The only place of importance is the little town of Scarborough.

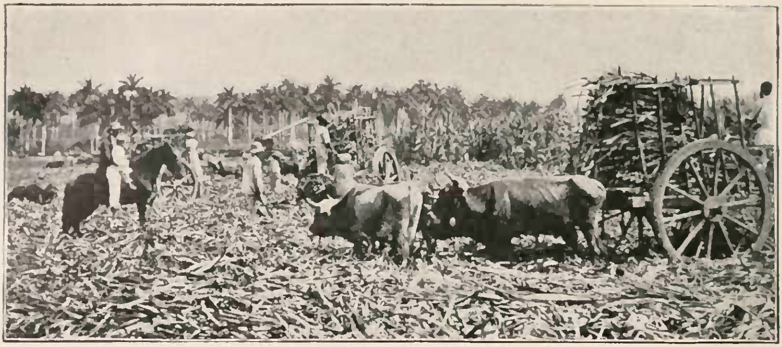
The only other island of the South American group worthy of present mention is Curaçao—that quaint fragment of old Holland located on the southern border of the Caribbean. Nearly five hundred miles west of Trinidad, and just off the western part of the northern coast of Venezuela, it is the capital of the few square miles of America owned by Holland in widely disseminated fragments at the extremes of the Lesser Antilles.

The island embraces two hundred and ten miles of rugged topography, composed of volcanic rocks surrounded by coral reefs. Some of the twenty-eight thousand inhabitants grow beans, corn, cattle, and salt, but most of them are engaged in commerce or office-holding. They are by no means wealthy. The Dutch creoles are a fair-skinned and pleasant people who speak Dutch, French, and English, but the negroes have a queer dialect known as the *papaimento.*

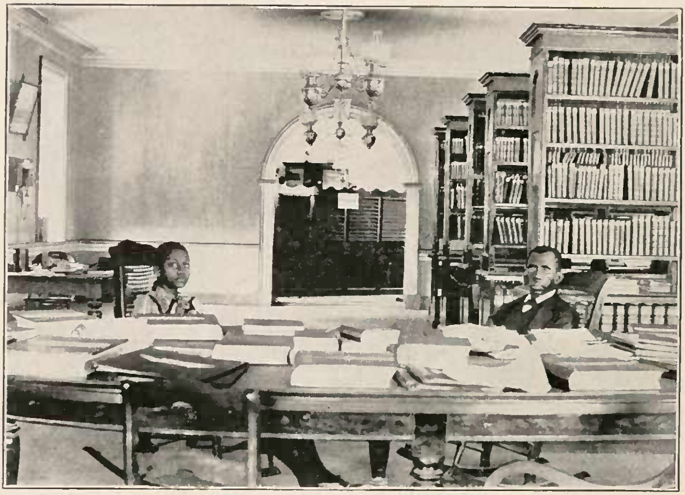
Willemstad, the capital of the island, has an excellent harbor. It is a quaint old Dutch city, suggestive of what New York may have been two hundred years ago. Its substantial buildings include the colonial offices, for Willemstad is the residence of the governor of all the West Indian Dutch islands, including Saba, St. Eustatius, and the half of St. Martin, three hundred miles away, and the adjacent islands of Oruba and Buen Ayre. He has his staff and council and army, and the *gezaghebbers*, or chiefs, of all the other islands report to him.

Curaçao does a large business with Venezuela, largely through smugglers, who take the goods to the mainland. The cordial made of orange-peel and known as curaçao is not made on the island, but in Holland, although it is the favorite island drink.

The remaining islands of this group, of which Margarita is the largest, are rocky, dry, and arid, and of little commercial or economic importance.



GATHERING SUGAR-CANE



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LAUNDRESSES

TURNING THE WINDMILL

BARBADOS

CHAPTER XXXV

BARBADOS

Insular position of the island. The coralline origin of its soils. Government and economic conditions. The Barbadians. Density of population. The struggle for existence.

STANDING alone in the Atlantic Ocean, one hundred and twenty-five miles east of the Caribbean chain, is Barbados, which might as well be located in the Indian Ocean or the China Sea so far as the resemblance of its natural features to the other West Indian Islands is concerned. It is as solitary as the Bermudas or Azores, and in its social and cultural aspects is equally anomalous. Furthermore, although much has been said in prose and poetry of the coral islands of the West Indies, this is the only one extensively populated by man which may be said to be of that origin, with the exception of Grande-Terre (Guadeloupe), and its dependencies of Désirade and Maria Galante.

The island resembles a pear in outline (the narrow end of which points to the north), and is slightly concave on the east. There are no outlying islands, as many suppose, probably owing to the final letter of the name of the island, which suggests plurality. Its area is one hundred and sixty-six square miles.

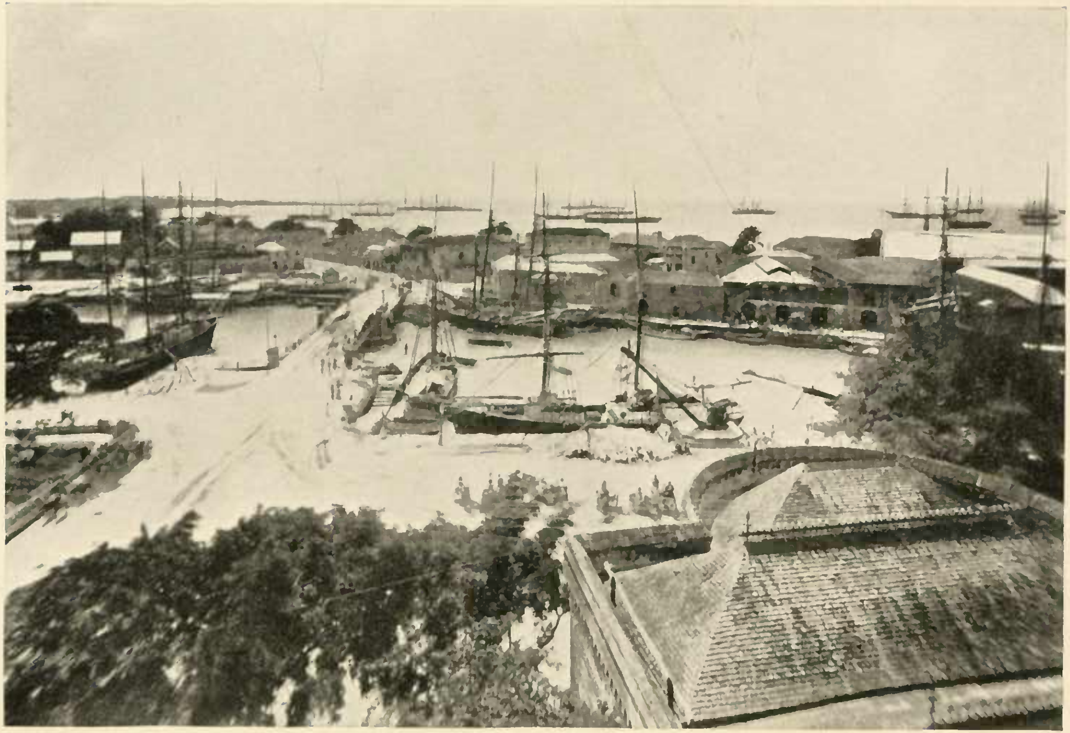
In configuration the island is elevated, and yet not mountainous, the highest point, near the center, Mount Hillaby, being eleven hundred feet, from which the land descends in a series of low terraces on all sides to the sea. So gentle are the hills that as one drives to the summit over the well-built roads the ascent is scarcely noticeable. The aspect of the country is that of a beautiful rural landscape, with innumerable sugar-fields, interspersed with groups of neat houses and plantations surrounded by gardens and trees, while ancient Dutch windmills may be seen in every direction cleaving the air with their gigantic arms.

In geological composition the island is unique. It consists of a nucleus of folded and crumpled clays and gravel of Eocene age, like the older sedimentaries of the Antilles, derived from some unknown land of the past, accompanied by thick layers of white marl and radiolarian earth of deep oceanic origin. Over the whole, like the rind of a melon, there is a thick veneering of calcareous coral rock, made up of gigantic coral heads consisting of reefs like those now growing around the island, which have been gradually elevated to their present height above the waters. This old reef rock is everywhere except in the limited Scotland district on the east side, where it has been worn away. It is never over one hundred feet thick. The highways are cut through these coral reefs; the stone houses are constructed of them; the planter plows into their surface to grow his cane. The beautiful natural terraces everywhere so conspicuous are the edges of these elevated reefs.

The climate of the island is delicious. The trade-winds blowing across the vast expanse of the ocean bring an air of crystalline purity, which has been fittingly compared to champagne. The rainfall is ample, but not excessive.

The principal city and only port is Bridgetown, on the leeward or western side; a pretty place, with churches, public buildings, gigantic warehouses, shops, some handsome residences, clubs, and many neat little houses of the lower classes, besides pleasure-grounds, a handsome military parade, seaside drives, and exquisite beaches. There is also a good library, an interior view of which is shown in an illustration.

There is no harbor, although shallow-draft schooners



BRIDGETOWN ROADSTEAD, BARBADOS

may enter a small creek; but before the city lies a beautiful roadstead, where can be seen lying at anchor a host of sailing-vessels, old-time brigs, frigates, ships, and modern schooners, presenting a sight which is rarely seen in these days when steam has so largely supplanted sailing-craft.

The place is a central port of call and repair for all the sailing-craft of the South Atlantic, as well as for many steamship lines. Above all, it is the headquarters of the Royal Mail Steamship Company. The Royal Mail is the pride of every English heart in the West Indies—the great artery of communication that keeps the islands in touch with the mother-country. It is a glorious sight on every other Saturday, when five great steamers of this line anchor in the roadstead—one from England, one going home from Colon and Jamaica, and three supplementary steamers that go up and down the Caribbees to St. Thomas on the north, Trinidad on the south, and Demerara on the east. They are usually crowded with English tourists, who come out to see these beautiful islands and review the scenes of England's past colonial and naval glories.

Like Jamaica, the Bahamas, the Leeward Islands, the Windward Islands, and Trinidad, Barbados is an independent colony, with its governor and legislature and all the excellent features of colonial administration. The religion is chiefly that of the Church of England, although other denominations are represented. There is one little railroad about twenty miles long, which carries the passengers through vast sugar-fields to the east coast, and then follows the rocky shores of the latter into the Scotland district. This road is a narrow-gage affair with a diminutive engine, which is fired with a common house-shovel. Good highways extend throughout the island.

The economic condition of Barbados, like its natural aspects, is different from that of any other colony in the West Indies. There is substantially but one industry, one product, and one export, that of sugar; nor does the island appear to be suited for the growth of any other product on a scale of commercial importance. There are no large central factories, the estates are small, and the mills, in most cases, are primitive, a large proportion of them being ancient windmills; but the sugar industry has survived because of the superior care with which the cultivation of the cane is carried on, the exceeding richness of the juice of the cane, and the cheapness of labor. If cane were cultivated as carefully in Cuba as it is in Barbados, the former island would be capable of supplying the world with sugar. The whole area of the island is occupied, and of its total acreage of 106,470, every foot is under cultivation, except 6470 acres occupied by towns, cliffs, or highways. There are no crown lands, no forests, and the population has probably reached the maximum which the island can support, even in favorable circumstances.

Nowhere are the resources of nature so closely garnered as here. Not a thing goes to waste; even when one darky ejects a mouthful of cane-fiber after extracting the juice, his follower on the roadside picks up the mass to save it for fuel; the negroes brave the billows in boats which no white man could sail, and perform the apparently impossible task of catching by thousands the flying-fish—an animal which seems especially adapted to avoid man's cunning.

Barbados has but one other resource besides the sugar industry, and that is the presence of tourists in the winter and the shipping-men who touch there.

The imports of the island greatly exceed the exports; in 1896 the former amounted to $4,982,208.50, and the latter to $3,603,953.25. Many of the sugar-estates are being carried on under governmental aid. The island is chiefly dependent upon the United States for its food-supplies and mules (from Kentucky) for the estates, and we practically consume the whole of its sugar product. The military establishment has also been the means of distributing some $237,500 per annum, but as the government intends transferring the troops to St. Lucia, the welfare of the island will be still further reduced.

STREET SCENE, BRIDGETOWN

COUNTRY CHURCH

LANDING WHARF, BRIDGETOWN

BARBADOS

The only mineral product of Barbados is "manjack," a form of asphalt which occurs in the older rocks of the Scotland district. During the last two years a few experimental shipments have been made to Boston by the American owners.

The radiolarian earth is a splendid abrasive material which could be used in the arts, but no one has thought of shipping it.

Barbados is in many respects an ideal place for those in search of a restful tropical spot. A large hotel for American tourists is open during the winter months, while on the eastern side of the island are some charming country inns at Bathsheba and Cranes Point, well kept in the English style. In winter many visitors come here. The English of Trinidad and Guiana seek the place as a health-resort. Each fortnightly ship of the Royal Mail from Great Britain brings hundreds of English tourists who come out to see the colonies; and it is seldom that an American yachting-party or man-of-war cannot be found in the roadstead. Excellent carriages are everywhere available for driving, while the sea-shore and bathing are as beautiful as could be desired.

It is an interesting historical fact that the only foreign trip ever taken by George Washington was made to this island in 1752, in company with his brother Lawrence, who was an invalid. Here the "Father of his Country" enjoyed the hospitality of the island, and also had the small-pox. It was a pleasure to revisit the scenes which he had described in his diary, especially the old Christ's Church, which now stands almost as he saw it.

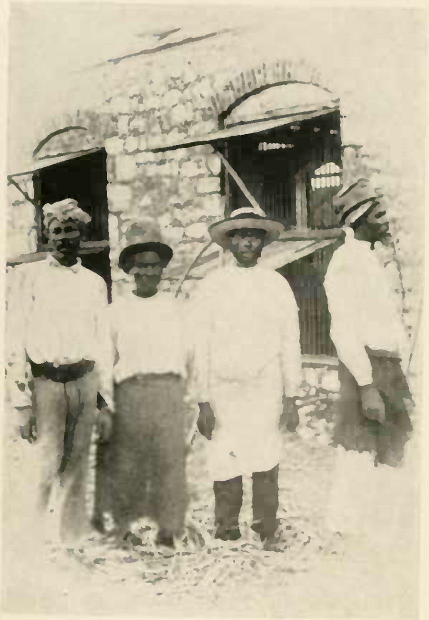
The whites of Barbados are descended from people who were blood-relations of our Virginia colonists, and there are the same family names which are met with in Virginia. Before the Revolution there was an intimate communication between the relatives of the two distant colonies, and frequent visits were made.

The inhabitants of Barbados number 186,000, averaging

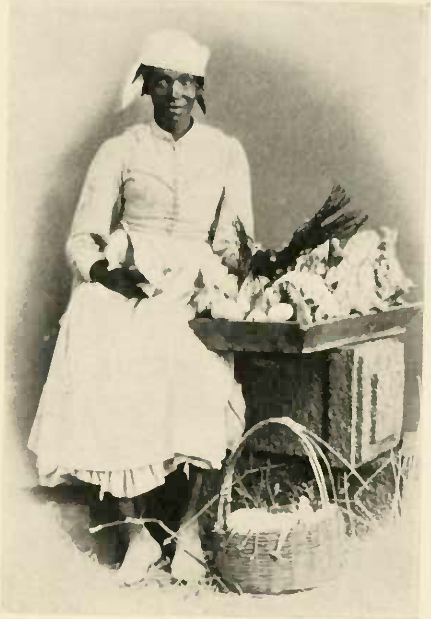
1120 to the square mile, the most densely populated country in the world to be found outside of China. There are many white families, numbering altogether 20,000 persons, most of whom have for generations looked upon Barbados as their home; the attachment of these people to the island and the traditions of the past is exceedingly strong. The island has been settled for so long, and so many generations have lived side by side, that a general understanding appears to have grown up of the respective habits and requirements of the different classes. The whites are outnumbered by the blacks in the proportion of over eight to one, and such blacks as cannot be seen elsewhere.

The Barbadian blacks have evolved into a distinct race, well marked by a physiognomy and dialect which can be recognized wherever seen. They are especially noted for their large and rotund heads, accompanied by open countenances and pleasant features. To the credit of the Englishman it can be said that the effects of miscegenation are hardly visible upon the island, and that the African race seems to have been preserved in all its opaque purity. In dress the Barbadians differ from the other West Indian Islanders, the costumes of the men being neat suits of white cotton,—coat, shirt, and trousers,—while the universal costume of the women is also pure white, accompanied by a neatly folded head-dress. Their clothing is stiffly starched with cassava. Shoes are worn only to church. Obiism seems to have almost disappeared from among these black people in Barbados, and most of them can read and write.

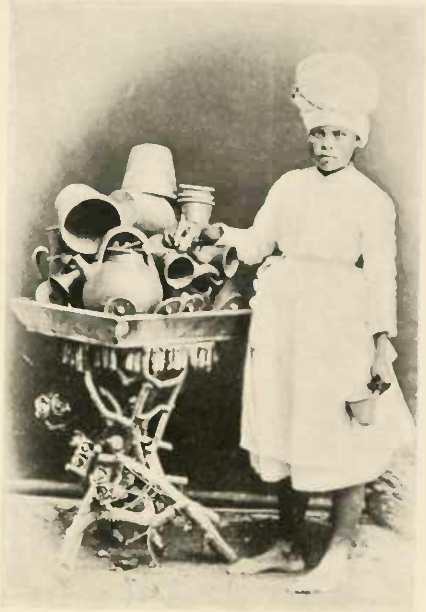
Before the ship has dropped its anchor in the offing, a mile from shore, it is surrounded by hundreds of these people in boats. They are passed masters in the art of attracting the attention of the stranger, and scramble with a good-natured ferocity for his patronage. A rowboat having been selected from the crowd, the journey to the wharves begins. As these are approached they are seen to be a living mass of black humanity, and almost as soon as



GROUP OF OVERSEERS



TRINKET-SELLER



POTTERY-VENDER

BARBADIAN NEGROES

he is within ear-shot the passenger is assailed by a clamor of voices begging the privilege of carrying his baggage. As you land upon the mall they beg, cajole, and grab you, until in sheer desperation you sit down upon your trunk, and with a cane defy the imploring mob. Then they laugh at you, and defy you to strike them, grinningly beseeching a blow. "I wish you would hit me, massa; I 'll take the law on you, sah." You soon learn that there is no viciousness on the island. You are merely witnessing the struggle for existence, which is keener here than anywhere else in the world. Everywhere you go upon the island you meet the grinning faces of these blacks, who stop you upon the road, and, after securing your attention with a salute both gracious and flattering, politely inform you that they would "t'ank you for a penny, sah."

This island is one of the few places in the world where human labor is so cheap that it competes with the beast of burden. On the densely crowded commercial streets of Bridgetown may be seen great drays loaded with merchandise, sugar-hogsheads, or lumber. In some instances these are drawn by teams of Kentucky mules, while near by is a vehicle of the same character pulled by a sweating team of human beings. Yet never have I seen a people who were withal so cheerful and good-natured; with them the very struggle for existence seems to have increased their cheerfulness and good-natured impudence, and in no manner to have quenched their spirits.

Notwithstanding the fact that the island is now developed to its fullest capacity, these people are so attached to it that they can hardly be forced to leave, and are as proud of their nationality as if they were citizens of some great country.

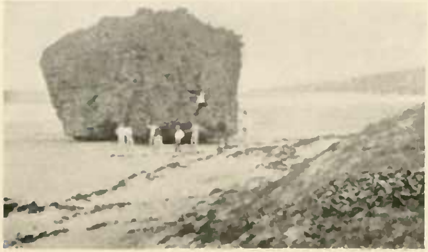
CHAPTER XXXVI

GEOLOGICAL FEATURES OF THE WEST INDIES

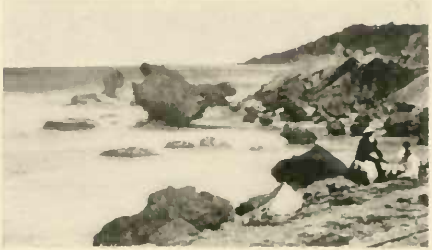
General paucity of mineral resources. Iron. Manganese. Salt. Phosphate. Sulphur. Asphaltum. Peculiar geological history of the region. Its bearing upon the myth of Atlantis.

THE reader may have noted the brevity of my remarks concerning the mineral resources of the West Indies. In general it may be stated that these islands are poor in those products of the rocks which are useful to mankind. No mineral fuels of any kind are found, unless rock asphalt (which is used in Cuba for the manufacture of gas, and in Barbados for running a locomotive) may be so considered.

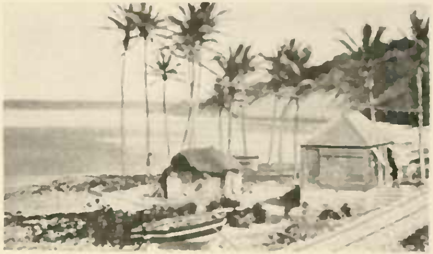
The precious metals are found only in the Great Antilles, and even there they are restricted to Cuba and Santo Domingo, and it is doubtful if they occur in paying quantities in either of these. Copper is found in the same islands, but also in doubtful quantities. But two metallic ores are known to occur in quantity, iron and manganese. These occur in eastern Cuba in great purity and large quantity, and have been or are the source of much value. There is every reason to believe that similar ores may be found in Haiti and San Domingo. Salt, which in these islands is more a product of the sea than of the land, is worked for profit in Cuba, Turks Island, Anguilla, St. Martin, and perhaps other places. Sulphur is known to occur in the soufrières of the Caribbee Islands, but it is probably not in great quantities or com-



ROLLED BOULDER FROM ELEVATED REEF



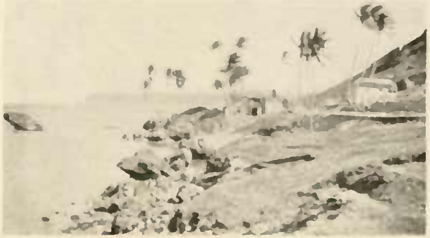
HORIZONTAL SEA EROSION OF ROLLED BOULDERS



EFFECT OF TRADE-WINDS ON VEGETATION

BATHING BEACH AND ELEVATED REEF

SEA-COAST SCENE



ELEVATED REEF TERRACE

COAST VIEWS, BARBADOS

mercially accessible, for the exports have never been considerable.

Asphalt may be said to rank next to iron as the chief mineral product. This occurs in Cuba, Santo Domingo, Barbados, and Trinidad. The Cuban kind is of a superior quality for the purpose of making varnishes. The Barbadian "manjack" is also a species of rock asphalt valuable in the arts. In Trinidad alone, however, does this material occur in any great abundance, Pitch Lake being the greatest asphalt-producer in the world. While building-stone, good enough for local uses, is abundant in all the islands, they are singularly void of ornamental export rock. Closely textured marbles and sandstones are unknown. In the backbone of the Antillean Mountains in the two larger islands there are some fine granitoid rocks, but no commercial development has been made of them.

Many hypotheses have been advanced in literature concerning the origin of the West Indian Islands. Some have believed that the Caribbees and Bahamas represent the remnants of a great isthmus, like the present Panama neck, which extended from the southern end of Florida to northern South America, and this hypothetical feature has been called the Windward bridge. Others have looked upon the islands as decayed remnants of the former eastward extension of the American continent. Others still have considered the Antilles the remnants of the ancient Atlantis—the large island which, according to an ancient tradition that was credited to the Greek geographers, was situated in the Atlantic Ocean west of Africa, opposite the Pillars of Hercules. Plato says that nine thousand years before his time this was inhabited by a populous and powerful people, who conquered the western part of Europe and Africa, and furnished a tremendous force of invaders who threatened to overcome all the people of the Mediterranean, until the gods finally came to the rescue and sent a great earthquake which caused the island to sink into the sea. Some writers of more recent date have explained the shallows of the Atlantic Ocean and the Gulf by alleging them to be remnants of this mythical island. None of these hypotheses is correct, however, although there are facts which might seem to the superficial observer to support any one of them.

The West Indies, as we have shown, are largely the tips of great rugosities of the earth's solid crust, the larger portions of which are submerged below the ocean. Great areas of these irregularities, like the banks of the western Caribbean, do not reach the surface of the water at all; others, like the Bahamas, rise thousands of feet, yet barely project as tips of land; still others, like the superb Antillean Mountains, although two thirds submerged, are so high that they rise ten thousand feet or more above the present sea-level. If the submerged banks could be elevated a hundred fathoms, or, conversely, if the sea could be lowered to the same extent, the area of the West Indies would be nearly doubled. That the submerged portions of these ridges and banks have stood much higher than now, making more extensive bodies of land, is most probable; and it is likely that there have been many changes of level.

It is reasonably certain that the West Indian lands before the close of the Tertiary period were much more extensive than now, and that the Great Antilles were once a connected body of land. This being so, without other evidence the Windward bridge might have been a possibility. But the facts of biology and geology show us that such was not the case, for if this bridge had existed, the Great and Lesser Antilles would now be populated by the animals common to the two continents, instead of being nearly void of mammals and absolutely without any North American features among their living or fossil land faunas. Furthermore, geological surveys have proved that, during this time of the expanding Antillean lands, the Gulf Stream flowed out from the American Mediterranean as now, but through a passage across the northern half of Florida, completely severing the West Indies from North America, and that southern Florida was at one time a West Indian island. Nevertheless, during at least one epoch the Great Antilles were probably connected into a single large island, while the Bahama banks to the northward made a long peninsula nearly as large in area, projecting out from Florida. Furthermore, the great banks of the western Caribbean Sea were at that time projections of land probably connecting Central America with Jamaica and possibly Cuba. All of these areas, with parts of Central America, may have been a vast island lying between the continents (for it is most probable that Central America then had no connection with North or South America), thereby fulfilling the old conception of an Atlantis; but man had not at that time appeared upon the earth, or, if so, it has not been proved, and hence there is no reason for supposing that this body of land was the Atlantis of the Grecian myth.

The geological history of these islands has been characterized by gigantic revolutions, marked by remarkable oscillations up and down, and general changes in area of the land and sea, such as are unknown or but feebly reflected in the synchronous history of the more stable and adjacent continents. The merest tyro in geologic knowledge knows that the eastern half of the United States, except the narrow coastal plain, has long been a stable land, covered with vegetation and drained by rivers since the Carboniferous period. He also knows that at the end of the Cretaceous and the beginning of the Tertiary period the great Cordilleras of the western half of North and South America were elevated approximately to their present outlines and that the main continents then passed into a period of old age. At this time, however, the known history of the West Indies was just beginning;

there may have been a few Paleozoic nucleal rocks in Cuba and Santo Domingo, but even this is uncertain, for the oldest positively determined rocks belong to the Cretaceous, Tertiary, and Pleistocene ages. During these later epochs remarkable changes have taken place in the Antilles, following one another with such rapidity that they have made a more complicated history than all the events that marked the earlier ages of the mainland.

At the close of the Cretaceous period the Great Antilles were regions of volcanic activity, by which material was transferred from the bosom of the earth into gigantic heaps of volcanic rocks. Whether these stood as islands in the sea or rose from a body of preëxisting land no one can answer, but the vast heaps of land-derived gravel and conglomerate which make the great thicknesses of old sedimentary rock in the Antillean Mountains and constitute the oldest-known formations of Barbados and the Virgin Islands lead to the conclusion that at the beginning of Tertiary time there were land areas in the West Indies concerning the shape and area of which we cannot even speculate. This may have been a still earlier Atlantis than the one we have above suggested. At this time the Caribbean chain was probably a line of active volcanoes.

Then followed another vast revolution. The preëxisting lands subsided beneath the sea to great depths, in places five miles or more, until only the merest tips of the highest land of the Great Antilles remained above the sea. Then these were probably reduced to small islands, possibly as diminutive as the smallest Caribbee of to-day, and their former areas covered with the calcareous radiolarian slime of the ocean's bottom. This was in the second quarter of the Tertiary history.

Then came, in the third quarter of Tertiary history, another revolution by which the ocean's floor was corrugated into land, and the old sediments with the deep sea chalks and muds were folded into the gigantic Antillean mountain systems, which at this time probably reared their summits to twenty thousand feet or more, connecting all the Antilles into a body of land, and producing the Atlantis which we first described. This mountain-making epoch was the one which produced the remarkable east-and-west folds we have so frequently mentioned in these pages, and which formulated the present major geography of the Antilles. With this orogenic revolution ended the volcanic disturbances of the Great Antilles, but the Caribbean vents were piling their heaps of tuff and cinder higher and higher.

Then followed another general subsidence throughout the region in the fourth quarter of the Tertiary history. This subsidence was great, but not so profound as that of the previous epochs. It was sufficient, however, to cut up the Antillean Atlantis into its present island membership, to carry beneath the waters the former lands represented in the now submerged banks, and to restore the limits of the narrow ridge from which rose the Caribbean volcanoes.

In later geologic time, when great glacial sheets covered the North American region, and since then, the West Indian region has been rising again in most places, although subsiding in others. The old banks of the Caribbean Sea and submerged platforms around the islands were brought up to within one hundred fathoms of the surface, and upon them the reef-making coral polyps found lodgment and began to add their contribution to the rock-making forces of the earth. This is shown by elevated benches of reef rock around so many of the islands, and by the elevated wave-cut terraces of Cuba and Haiti, to which we have called attention.

During these later changes there is no reason to suppose that the two great basins of the American Mediterranean —the Gulf of Mexico and the Caribbean Sea—at any time lost their general integrity or connection with the mother oceans, although their limits were expanded and contracted, and at times they may have been invaded by the Pacific; for Agassiz's researches have shown that their bottoms are still inhabited by the old marine life which began further back in geologic time than is recorded in the rocks of the surrounding lands.

In conclusion we can only say that the West Indian history, although peculiar and still largely uninterpreted, shows no evidence that these islands were ever in any manner connected with the North American continent.

FISHERMAN

EARTHENWARE-SELLER

STREET ARAB

BARBADIAN TYPES

CHAPTER XXXVII

RACE PROBLEMS IN THE WEST INDIES

Varied nationality and character of the inhabitants. Condition of the native whites. Possibilities of the white race. The negroes. Their general character, habits, and moral condition. Obiism, or witchcraft.

I BELIEVE it was Froude who remarked that the West Indies might be a very interesting field for the contemplation of the naturalist, but for the student of people they presented little that was of interest. I cannot wholly agree with this proposition. The spectacle of the political conditions of the natives of the West Indies is indeed pitiful, but the people themselves are interesting, whether perturbed Cubans, despondent San Domingoans, hopeless English, atavistic Martiniques, or the vast hordes of blacks of many kinds. I have tried to convey an idea of how each of these islands is breeding a different species of mankind, but a volume would not suffice to amplify this topic. Not only upon each island, but, as Hearn has shown, in mountainous Martinique "people are born and buried in the same valley without ever seeing towns but a few hours' journey beyond their native hills, and distinct racial types are forming within three leagues of each other."

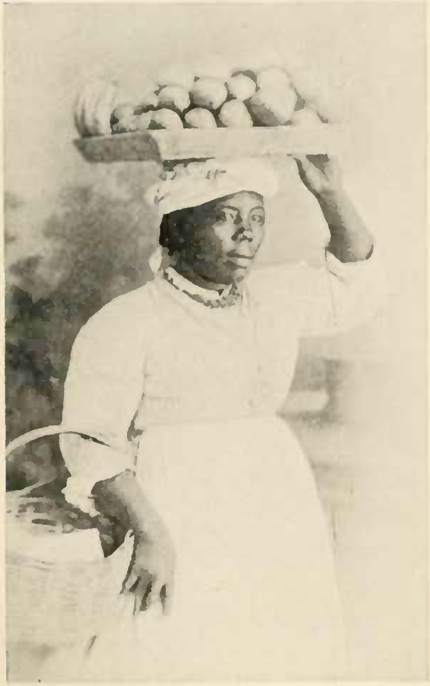
The West Indian people represent many original stocks, which have developed variations of habits and customs in their New World environment. They are practically divisible into three great races, the white, colored, and black, modified by Spanish, English, and French civilizations.

The Danish and Dutch influences are trivial. The English habit, wherever implanted, is one of law and order. Where the Latin predominates, civilization is lacking, at least in methods of modern sanitation. In the countries in which the French race habit has been implanted, Haiti, Martinique, and Guadeloupe, there has resulted a more complete elimination of the Caucasian type than in either the English or Spanish islands.

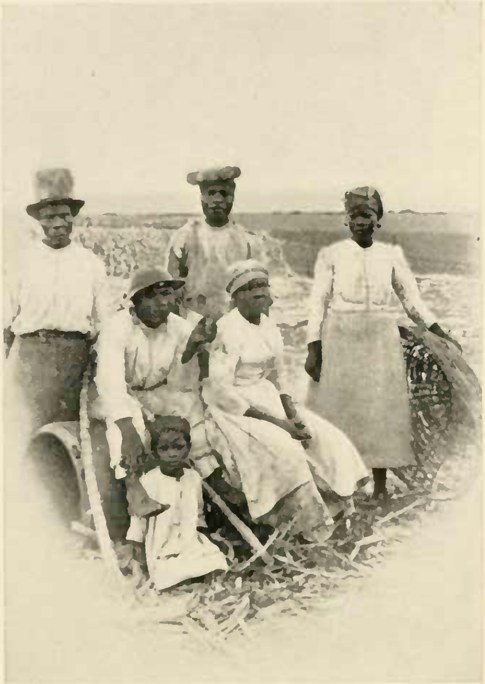
The condition of the native whites, with some exceptions, is most unfortunate, and yet at the close of the last century no finer race existed than the whites of the West Indies, of whom were Hamilton, Dumas, and the Empress Josephine. With the industrial ruin these people have rapidly decreased, and their children are sent to more progressive parts of the world. We do not mean to say that most excellent white people may not be found in all the leading walks of life, upon every island, but these are not increasing, and the old planter class is almost gone.

Yet here and there we find proofs that the white race still maintains its foothold. The descendants of the old Dutch settlers of Saba, St. Eustatius, and Curaçao are examples of a long-domiciled European race which has not lost in complexion or sturdiness. Upon every little island can be found an old Yankee skipper or two who has settled there to enjoy old age; merchants, bankers, consuls, and shipping-agents seem also to find life pleasant in these tropical surroundings.

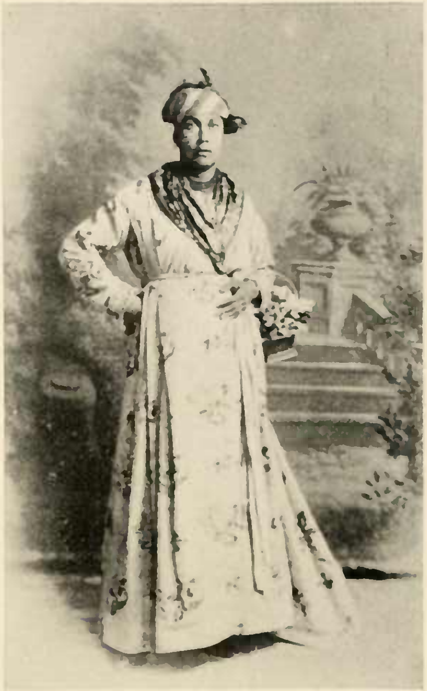
Modern science has done much to alleviate the process of acclimation in the tropics, yet every one who goes there must pay a penalty. Changes in the tissue must follow if the individual is to become wholly acclimated or adapted to the new conditions. The nice balance of power is upset. Many unduly expose themselves to the scorching sunlight; others expose themselves to the heavy dews. Many indulge in the fully matured juicy fruits of the tropics, thereby upsetting the already overtaxed internal machinery. A fever of some kind is a mere



GOING TO MARKET, BARBADOS



FIELD-HANDS, BARBADOS (NOTE CHARACTERISTIC BARBADIAN HEADS)



WOMAN IN CHARACTERISTIC COSTUME, FRENCH MULATTO, GUADELOUPE

TYPES, BARBADOS AND GUADELOUPE

question of weeks or months. It may be a simple malarial fever, a pernicious malarial fever, or the dreaded "yellow Jack."

White men went to the West Indies long before these days of modern sanitation, and lived to old age, and others can now do the same. It is but fair to say that the present population, both white and black, has only been established at a tremendous cost of life. The English have reduced the death-rate in Jamaica from 100 to 19 per 1000, and the Americans will reduce that of Cuba; but even with all that science has done and is doing, acclimation will for many years remain a costly process, which will always require sacrifice of strength, if not of life.

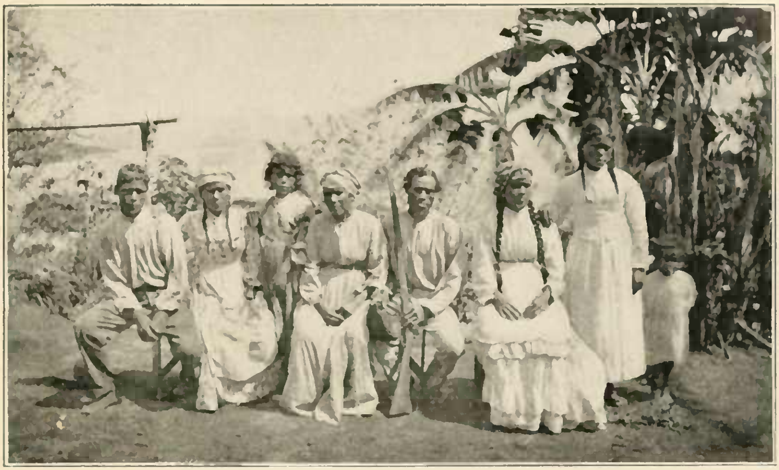
In the West Indies there are but two or possibly three islands in which there is room for further Caucasian colonization—Cuba, Santo Domingo, and possibly Jamaica. Porto Rico is already crowded, while the Lesser Antilles, owing to their remoteness from markets, offer no inducement at present to white immigration. It is only to the business man and developer of large enterprises that these islands offer opportunities. With the exception of Cuba and Porto Rico, they are overwhelmingly populated by the black races. These people, constituting the laboring element, are there to stay, for better or for worse, and their future advancement or degeneration depends upon the treatment they receive from, and the example that is set them by, the governing classes. Some of the islands are so densely populated that they seem incapable of supporting another human being, while others possess room for future black populations.

Every thoughtful reader must ask if this large proportion of blacks is not a menace to our civilization. I have tried from time to time to show that the West Indian negroes are of many varieties, but that they are a harmless and useful race, that they are the only people who can do hard manual labor in the tropics, and that they could not be easily replaced. Many suppose that the present West Indian negro is the natural result of adaptation to a climate somewhat similar to that of his ancestral home; but this is not altogether true, for it has been shown that he is in a degree a result of the survival of the fittest, for the process of acclimation cost many lives for every individual that survived.

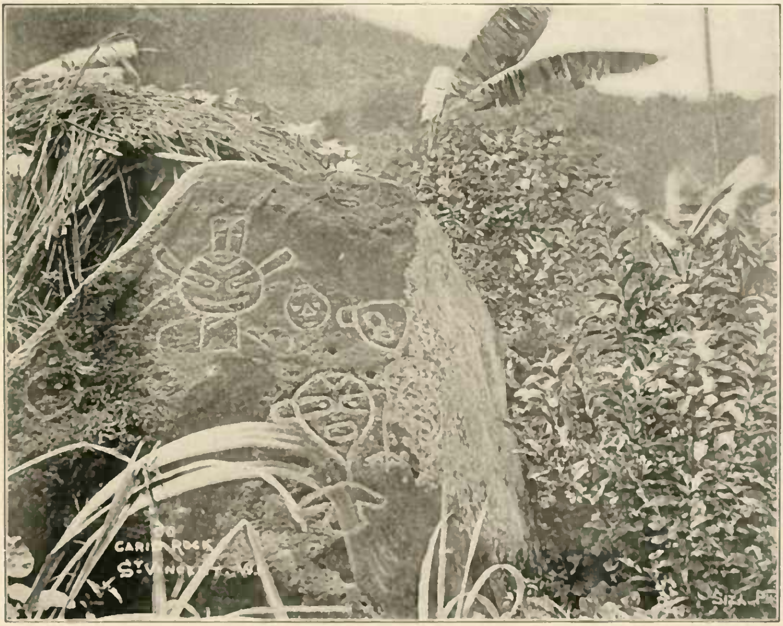
The black races of the West Indies, and their habits, are most interesting studies. Gathered as they were from numerous tribes of Africa and settled upon the different islands, they naturally show not only differences in inherited qualities, but in those habits acquired from different masters for which the African is noted. Thus there are English, French, Spanish, Irish, Scotch, and Dutch negroes in the various islands.

As a class these are industrious and orderly, varying in these respects with the political condition of their masters; but it is a singular fact that the great crimes of rape and murder, which have been such a blot upon the record of the American negroes, are almost unknown in the West Indies. As Sir Henry Blake, lately governor of Jamaica, remarked to the writer, a woman can travel alone from one end to the other of that island, without thought of danger. Furthermore, the horrible habit of lynching, which prevails in our Southern States as an accompaniment of those crimes, is entirely unknown; in fact, but few capital crimes are committed in the West Indies.

Another quality concerning the West Indian negro is the fact that the caste system, which exists there as a rule, is quite different from that of the United States. Here the negro is almost universally debarred from civil equality, and seems to have more strongly impressed upon him the constant feeling that the white race is opposed to his obtaining opportunities and civil advancement, although our laws convey the impression that all men are equal. In the more advanced West Indies, especially the British, social equality is neither taught nor believed in by any



CARIB INDIANS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CARIB ROCK-INSCRIPTIONS

ST. VINCENT

person. Caste and station are acknowledged, and the negroes realize that it depends upon intelligence and merit; and they do not feel that service is degrading. They also recognize the necessity of strong government, and have a deep-seated respect for the laws and those who administer them.

The devotion and respect of the English negroes for their country is most impressive. One morning, while watching a landing-drill of the British tars upon the beautiful campus at Barbados, my attention was distracted by a great black market-woman who kept muttering to herself in a perfect ecstasy of delight: "Dem 's Mistress Keen's[1] soldiers, and in de time when de enemy comes dey 'll take care ob me." This feeling that the government will protect the rights of the lowest is the great safeguard against any inherited tendency of savagery to be disorderly.

In my travels in the West Indies I have never seen the least incivility on the part of the negroes toward the whites, though I have seen them at their best and at their worst. As a geologist, it has been my habit to employ the first man or boy I saw upon the road to carry specimens and do the drudgery on my excursions into the country. I have never had one fail me within his limitations, nor be less respectful than if he were the private orderly to a general.

Much has been written upon the low moral condition, mental degradation, and superstition of the West Indian negroes. Concerning the first charge it can be said that, in all respects other than that of looseness in sexual relations, they are superior, as a class, to the negroes of our own country. The white clergy in the West Indies are in close touch with the black population, who are not cut off from the higher class of religious instruction, as in this country. Crimes against property or person are comparatively rare, and the negroes have not the reputation there of a natural propensity for stealing, as expressed in American caricature. So far as mental degradation is concerned, I have been astonished at the literacy of these people, especially in the British West Indies, where men and women working for a shilling or less a day are able to read and write. Furthermore, there have been exceptional cases where negroes, outside of Haiti, have risen to positions of learning and influence, like the chief justice of Barbados, and many blacks in the English civil service.

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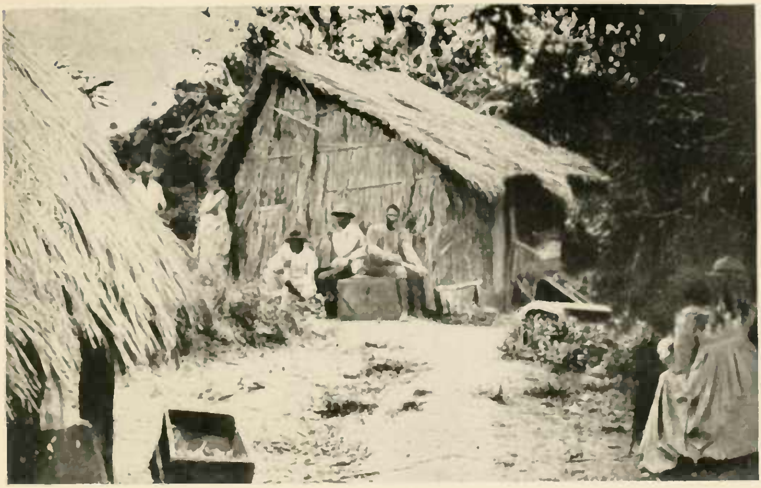
[1] Queen Victoria.

Concerning the charge of superstition, it is true that both the blacks and whites of the West Indies are saturated with it, but not to the degree that has been alleged. Every book of West Indian travels tells of this subject, picturing the terrible doings of the obi-men, their influence over the ignorant peasants, and the deadly fear they create among the white planters. Some even go so far as to tell of horrible cannibalistic sacrifices and orgies which defy the most vivid imagination to describe. One who reads St. John's book, "Hayti; or, The Black Republic," will be filled with horror at the tales of cannibalism and savagery it recounts, and shudder at the thought of such deeds within gunshot of our own country. Yet it is my calm conclusion, borne out by the testimony of others, that the writer of this book has committed the common mistake of adding to the actual facts of the African obi rites the imaginary French witch-lore known as vaudoux (voodoo).

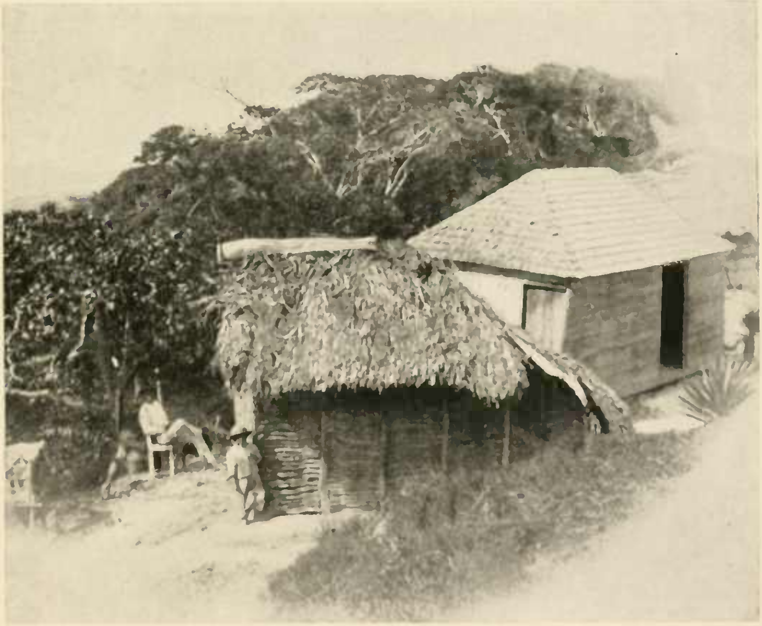
In opposition to St. John's charges Mr. Bassett, the Haitian consul-general, wrote: "I have lived in Haiti as United States minister for nine years, and there is just about as much cannibalism there as there is in the city of New Haven."

A doctor of divinity, a native West Indian, wrote: "From my own knowledge I can testify that the voodoo worship and the snake dance are practised in Haiti, but cannibalism, I am sure, is not a custom of the Haitians."

Mr. Preston, who for many years was dean of the



NEGRO HUT



AFRICAN BASKET-WATTLE HOUSE, BOARD HOUSE, ADAPTATION OF SAME

ST. VINCENT

diplomatic corps in Washington, said: "I was born in Haiti and spent about half of my life in that country, and I never saw any person who had seen anything there in the shape of cannibalism. I have seen persons who were known serpent-worshipers, but no such thing exists as voodooism."

Mr. Whidden, the first minister of the United States to Haiti, believed that these reports were based on popular rumor, sometimes originating in private malice, and was of the opinion that, if the truth were ascertained, there would be found no more cannibalism in Haiti than in Jamaica.

Most of the West Indian negroes, only a few generations removed from savagery, undoubtedly believe in witchcraft, and practise it, too, as I shall describe; but the most absurd feature is that the native whites, while not practising it, believe in its powers and exaggerate its actual performances by attributing to it all the absurd doings which their Gaelic or Saxon forefathers believed in two thousand years ago. I have taken great pains to study this peculiar subject in both the United States and the West Indies.

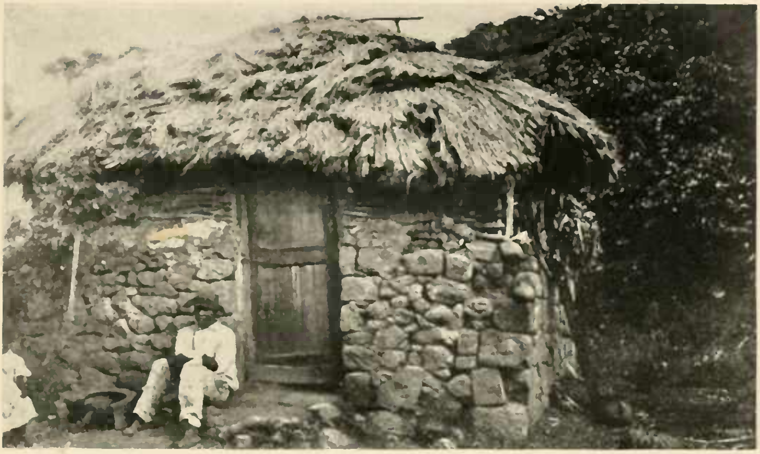
Nearly all races of mankind in primitive ages have believed in witchcraft; that is, that certain persons have dealings and influences with evil spirits whereby they obtain the power to work spells for good or evil upon other people or their belongings. This is not religion at all. It contains no moral or contemplative conception, but is merely a sanction of savage fear and revenge—a form of belief and practice which preceded religion in the evolution of all mankind. Its conceptions still linger in the folk-lore of civilization, and more strongly than we are inclined to think, for thousands of the peasantry of European countries, and perhaps our own, still believe in witches and their supernatural powers.

African witchcraft goes under many names. In the English colonies it is known as obiism, in Haiti and the French colonies as vaudouxism, in Louisiana as voodooism, and in the other Southern States of English settlement as conjure. Its reflection in the Northern States is called hoodoo. Furthermore, obiism and conjure on the one hand, and vaudoux and voodoo on the other, are two distinct conceptions.

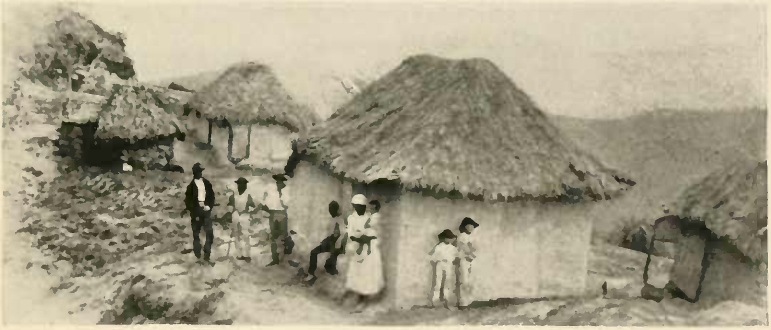
The first is African witchcraft as actually practised by negroes the world over. The second is the French conception of imaginary witchcraft—inherited folk-lore from the days of ancient Gaul, something which all French peasants believe to be, but which is not and has not been.

Obiism, like all savage religions, is based upon belief in evil spirits which can be invoked or propitiated by gifted human beings. The conception of a benevolent Supreme Being is not essential or necessarily considered; or if considered, he is all-good and needs no human propitiation, but the evil spirits are those which must be guarded against or cajoled. Obiism is characterized by four essential beliefs: (1) that certain human beings can propitiate or influence the evil powers; (2) that evil spirits are associated with serpents and reptiles; (3) that the shades of the dead return to work revenge upon the living; (4) that charms for good or evil can cast spells upon the victim.

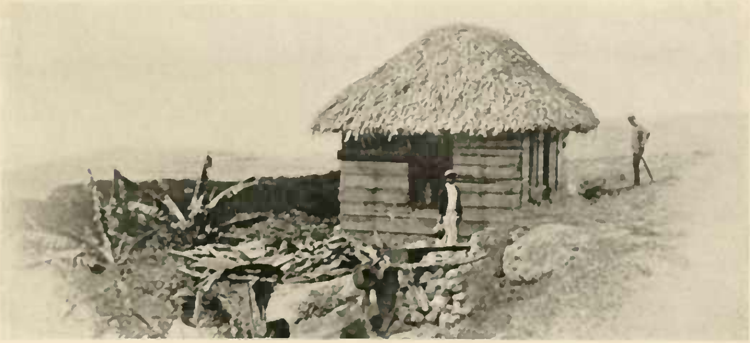
The first and chief factor of this savage belief is the witch-doctor or obi-man—the voodoo-doctor of Louisiana and the conjure-doctor of the South. His power lies in the influence of his presence upon simple-minded folk, and the faith he creates in the potency of his charms and actions. He is usually a venerable man of hideous mien, who goes about pretending to practise spells and charms, and selling a few simple herb remedies. He is undoubtedly a survival of the medicine-man found in every tribe in Africa, and exercises a great power for good or evil through his hypnotic powers. He may or may not possess a knowledge of a few simple vegetable poisons, as alleged. In exceptional cases he may cause ignorant servants to administer poison or slow deranging



NEGRO HUT, ANTIGUA



NEGROES AND LOW WHITES, EAST SIDE OF BARBADOS



FISHERMAN'S HUT, BARBADOS

ANTIGUA AND BARBADOS

drugs to their masters from motives of vengeance. All the whites of the West Indies believe that they do so, and weird stories are told of planters who have thus sickened and died.

Another strong feature of obiism is the belief in haunts. The negroes believe that not only the spirit but the person of the dead, in a modified form, returns to trouble the living. These more nearly correspond to the shades of the ancient Greeks, having body and substance, than to our conception of spirits which are without them. These shades are known in Jamaica as "duppies," in Martinique as "zombi," in Antigua and Barbados as "jumbies," and in America as "harnts." They are somewhat related to the myths of the will-o'-the-wisps, for Jamaica duppies, at least, have fiery eyes ("D is for Duppy; him eye shine like fire"), and the darkies are in dread of moving lights at night. Duppies and their kind are supposed to inhabit certain trees, especially the giant ceiba, which in Jamaica is particularly feared by the negroes on this account; and they will not cut or injure it, except after threats or violence, and even then they must first be made drunk; and while felling it they chant a song, "Me no cut you, massa; he cut you." Dead children are especially liable to return as duppies to haunt the mother, who, even though she may have been the tenderest of creatures, always recalls some act of omission or commission on her part which will cause the child to return and punish her. To prevent this, they are very particular to put heavy weights upon the graves; otherwise they will awake some night to find the duppy sitting upon the foot of their bed.

Obiism, in its most primitive form, is accompanied by a few crude rites. Its believers are supposed to meet at night in some wild and secret place, where the obi-doctors or priests perform incantations, and the believers sing and dance themselves into wild trances (such as the dance on the Place Congo in New Orleans, described by

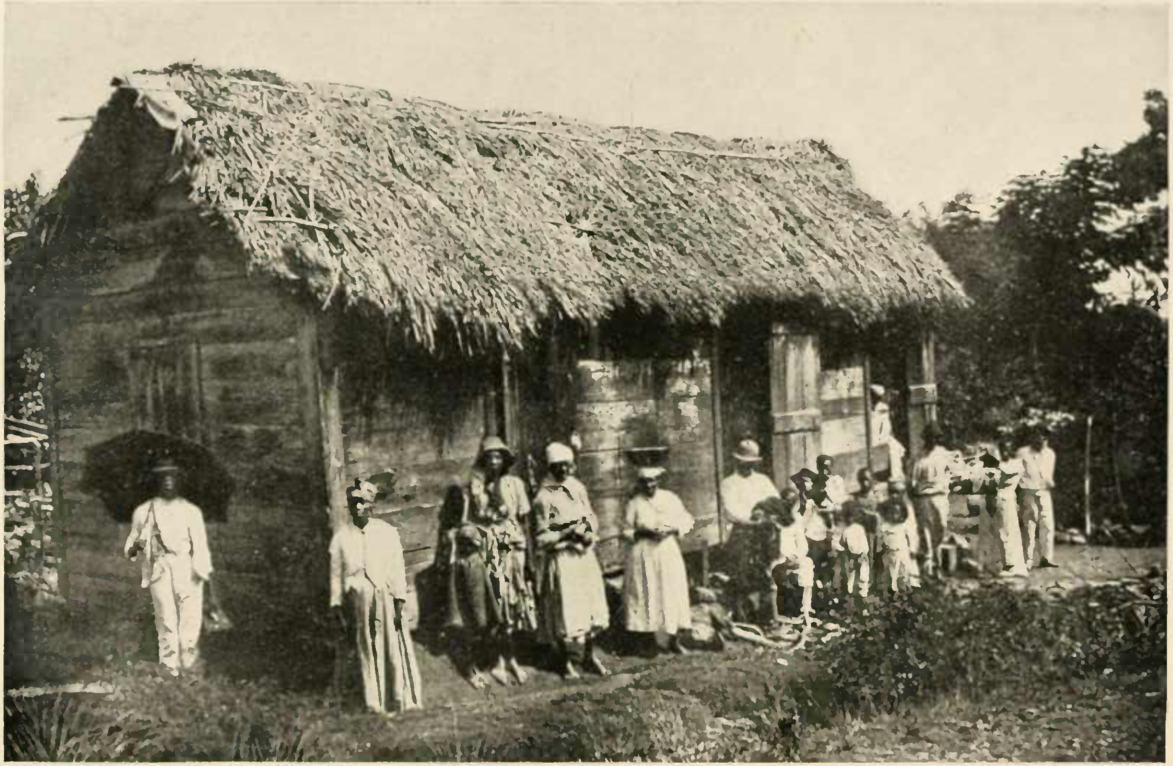
Cable), and even to offer blood-sacrifices of cocks, goats, or children, to propitiate the evil one. Sometimes the evil one is present in the person of a harmless serpent, as in West Africa and in Haiti, where a large native snake takes the place of the African reptile. Among other people, as in Jamaica and the United States, the propitiation of the snake, as such, has been abandoned, but all of the reptilian tribe is shunned with horror and regarded as influential for evil (powerful obi). Even in Louisiana snakes are said to enter still into the ceremonials of obiism.

The trances into which our negroes fall at their religious revivals are undoubtedly survivals of these rites. These meetings have practically been abandoned by the blacks wherever white churches have been instituted, except possibly in Haiti and Jamaica, and even there they are infrequent.

A remarkable fact concerning these rites is that descriptions of them are based on hearsay, the narrators always asserting that it is impossible to ascertain anything authentic respecting them, owing to the secrecy with which they are carried on. This fact adds to the suspicion that even the African devils are painted blacker than they really are, and that many of their alleged doings have taken place only in the imagination of the narrator.

Such is the worst obiism of the West Indian blacks, which may survive only in Haiti, if even there; which, in a modified form, can be found everywhere in our own country; and which is in no manner markedly different from the tales of witchcraft which one cannot escape if he visits Salem, Massachusetts.

There can be no doubt that the African obiism survives in some form wherever the African race is extant, just as the Germans and English believe in elfs, gnomes, and fairies; and in a degree it is practised in America from Boston to the equator. Taverner, writing in the Boston "Post" of February 1, 1883, describes a negress



NEGRO HUT, ST. VINCENT

conjurer, and states that "her reputation on the northerly slopes of Beacon Hill fully equals that which the most fashionable physician has acquired on the southerly side of the same eminence."

In 1897, within a week after my return from the West Indies, where I had made various observations upon obiism, I clipped from the daily papers of Washington city three notices of the vaudoux-doctors and their doings. One had been arrested for illegal practice of medicine in the city; another of much celebrity had died; and a third had been guilty of some trifling misdemeanor which attracted public attention.

I can recall vividly to this day the scene I witnessed, as a boy, upon a farm within four miles of Nashville, Tennessee, when a great commotion occurred among the former slaves in the quarters then still occupied by them. There was such a loud chattering of African voices from the cabins that the proprietor of the place proceeded to ascertain the cause. An old and trusted female servant, who was afflicted with scrofulitic sores upon one of her arms, was denouncing a certain negro, who, she said, had employed an aged and toothless old man, then standing in the center of the crowd, to cast his spell upon her; and as proof of her assertions she produced a small bottle which she had dug from the path before her cabin door, containing a few horsehairs and reptile-claws, which, she said, had made snakes grow in her arm.

The papers of the South frequently mention the doings of conjure-doctors. The Atlanta "Constitution" of November, 1885, stated that perhaps one hundred old men and women practised voodooism in that city—telling fortunes, pointing out the whereabouts of lost and stolen goods, furnishing love-philters, and casting spells upon people and cattle. They belonged to all ranks and classes of negroes.

The American conjure-doctors, like those of the West Indies, carry bags to hold their charms, consisting of lizards' claws, dried rats, human bones, and other gruesome objects. The Selma (Alabama) "Times" of May, 1884, describes one of the bags picked up in Broad Street of that city, which contained a rabbit's foot, a piece of dried "coon-root," some other roots, and particles of parched tobacco. The rabbit's foot, perhaps, possesses more powers of sorcery than any other instrument in use among the black doctors of the South, being an especial charm against evil, particularly "if it is a left hind foot from an animal caught in a country graveyard on a cloudy night in the new of the moon."

The rabbit's foot of late years has pervaded white society. Base-ball players and sporting men generally carry one; and, mounted in silver, they are displayed in the shops of our great cities. Even statesmen can be seen wearing these as watch-charms in Washington. The Philadelphia "Evening Telegram" of August 7, 1884, noted that the left hind foot of a graveyard rabbit had been presented to Grover Cleveland as a talisman in the campaign.

The vaudouxism of the French colonies is something different from obiism. It is obiism which has been magnified by attributing to it the imaginary doings of the French vaudois—the supposed cannibalistic witches whom every French peasant, white or black, thoroughly believes in. The superstition of the terrible doings of the vaudois is as firmly embedded in the folk-lore of the French peasant's mind as our belief in the rotation of the earth, and the word contains a strong moral reproach; and it is a strange coincidence that the Vaudois of the fifteenth century were accused of all the horrible things which to-day are attributed to the Haitian negroes, such as cannibalism, especially the sacrificing of children and eating of their remains; the disinterment after burial of those parts of the victims of such sacrifices as have not been eaten; the transubstantiation of the human form into the shape of wolves for the purpose of securing victims for the sacrifice; their secret knowledge in the use of herbs, whereby they can produce health, sickness, etc., especially slow death, impotence, riches, poverty, storm, rain, hail, and tempest.

From the similarity between the stories told of the Vaudois and of the Haitian vaudoux, there can be little doubt that most of the horrors attributed to the latter are merely products of the imagination of a people who through their French association have become impregnated with their belief in the existence of this particular species of witchcraft.

Mr. W. W. Newell,[1] to whom I am indebted for many of the data herein presented, has shown the remarkable identity of the charges which the French of the middle ages made against the good and pious sect of Waldenses, and those now daily reiterated concerning the vaudoux. These good people, called Vaudois, were then accused of practising nearly everything that is laid upon the vaudoux. They were called a sect infernal and worthy of the hatred of all good Christians, and were bitterly persecuted, and the pious members, under torture, were made to confess the practice of witchcraft and all horrible things. Furthermore, the word *vaudois* meant a witch, and *vauderie* signified a sorcerer, in France. At the same time the name *Vaudois* was applied to an imaginary sect of witches, and the respectable Waldenses were regarded as guilty of all horrible crimes laid to the account of sorcerers. The word still survives in France. In the canton of Vaud the form is *vaudai*, a sorcerer; in Morvan it is *vaudoué*, and the corresponding verb is *envaudoueiller*, signifying to bewitch or voodoo, or, in the corrupted form which it has assumed north of Mason and Dixon's line, "hoodoo."

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[1] "Journal of American Folk-lore," January, 1888, vol. i, pp. 16–30.

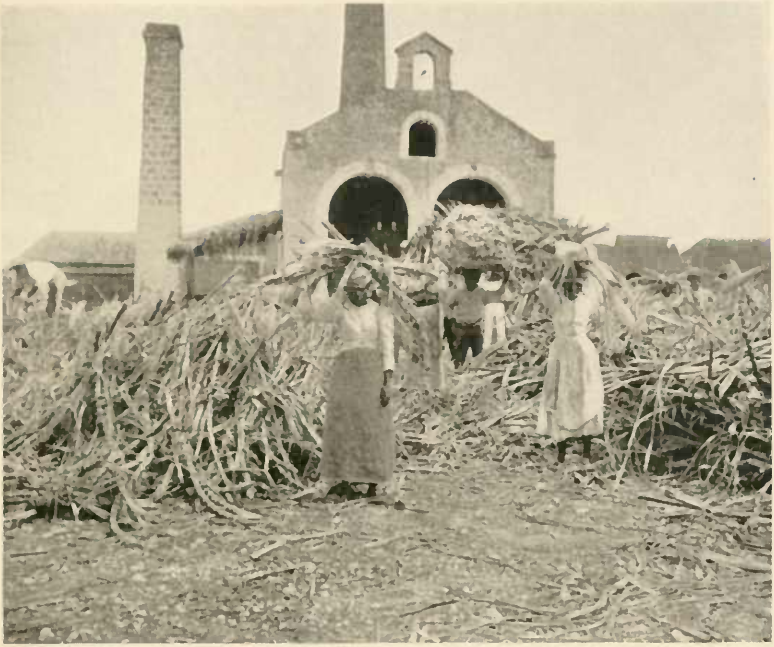
CHAPTER XXXVIII

THE FUTURE OF THE WEST INDIES

Vicissitudes which have been survived. Depression of the sugar industry. The bane of alien land-tenure. Bad effect of political distribution. Prospective relations with the United States.

I HAVE endeavored to give a picture of the present condition of the West Indies, with sufficient notes on their history to convey an idea of their past and present; but now not only to the few representatives of the Caucasian race upon these islands, but to the civilized world, the question is, What of the future?

These beautiful islands have stood the shocks of earthquake, the devastation of floods, and even some of them the greater catastrophe of volcanic outbreaks, and yet recovered. Five times have they been prostrated by events of human agency, not counting the extermination of the aborigines. During the first three centuries of their settlement, civilization flourished in the face of the most rapacious piracy and freebooting the world has ever known. Then came European wars at the close of the last century, when France, Spain, and England vied with one another in despoiling them. An era of revolutions followed, when the people rose or threatened to rise against European domination. Next the emancipation of slavery upset the labor system, and caused as much impoverishment as the other causes. Finally, in 1885, came the great fall in the price of sugar and the ruin of their chief industries. In all but Cuba, sugar



NEWCASTLE SUGAR-MILL

SPREADING BAGASSE TO DRY FOR FUEL

CANE-GRINDING BY WINDMILL POWER

SUGAR-CULTURE — BARBADOS

cultivation is now paralyzed. In some of the Lesser Antilles it is still carried on without profit, giving the plantation hands a mere subsistence and tightening the coil of debt around the planters; in others, such as Dominica and St. Thomas, the planters have given up the struggle, and the once productive cane-fields are going back to jungle. Unless something is done to alleviate their agricultural conditions, many of these islands will revert to primeval forests inhabited solely by negroes. It indeed seems a pity that countries blessed with the richest conceivable soils, possessing an abundance of laborers who are willing and anxious to work for prices averaging fifteen cents a day, should be decaying at the close of the nineteenth century, when the demand for agricultural products is greater than ever before in the world's history.

It is true that the beet-root has appeared as a competitor with the cane as a source of sugar; but the world would consume at fair prices all the sugar that these islands could produce, were it not for the embargoes of trade and artificial political conditions produced by governmental greed. Germany alone, notwithstanding her enormous production of beet-roots, could consume the West Indian sugar-product, were it not for the fact that by its bounties and tariffs it makes this article too dear for its own people to use.

The English islands are in a more depressed economic condition than the others. The government has sacrificed her West Indian colonies for a principle. Had she put a protective tariff on non-British sugars, these islands would be at least well-to-do. But her statesmen have failed to see why the millions of sugar-consumers should be taxed for the few West Indian planters, even though the Germans were enriched by British free trade, and the islands' prosperity destroyed.

Another great bane of the English islands is the fact that the lands are largely held by alien owners, who acquired them in days when the large plantations were profitable. In St. Vincent, for instance, there are thousands of acres of fertile lands uncultivated and likely to remain so. The holders of these lands appear to be unwilling to sell them in small lots at reasonable prices, and are unable to cultivate them. The British Sugar Commission has recommended that these lands be acquired by the government and sold to the peasantry. It has justly said that a monopoly of the most accessible and fertile lands by a few persons who are unable any longer to make beneficial use of them cannot, in the general interests, be tolerated, and is a source of public danger.

What is needed in the British West Indies is a combination of the English and American systems—a preservation of the English respect for law with a mixture of American push and go, with a relaxation of the English official pride which looks down upon trade and industry, and a little less American familiarity, which breaks down even the respect in which the West Indian negro holds the white race, and which is the only barrier between himself and his political supremacy in these islands.

A greater drawback to the West Indies than the one-sided agriculture is their political condition. Their distribution among too many jealous nationalities necessitates the support of expensive and useless administrations, and prevents federation of interests and the development of trade among themselves and with the United States, the nearest and largest natural consumer of their products. Very ridiculous some of these political conditions seem. The island of St. Martin, not as large as an average county in the United States, is divided into two principalities, the French and the Dutch, each of which maintains an administrative force as large as that of the State of Texas. Then, as we sail down the eastern islands, hardly a score in number, and within sight of one another, aggregating in area less than our little State of Delaware, we find five foreign flags and no less than a dozen distinct colonial governments, each responsible to Europe, with no shadow of federation between them, or even coöperation of any kind—a condition not only pitiable, but absurd. Why should Dominica, whose people are French in language and institutions, be sandwiched in between Martinique and Guadeloupe, and within easy sight of both, yet so cut off from them by quarantine and tariff laws that it is commercially nearer England, some three thousand miles distant, than it is to its neighbors?

Every product of these islands, were it not for the political conditions, would as naturally find a market in the United States as the magnetic needle finds the north. Notwithstanding the heavy embargoes of our tariff, an average of sixty per cent. of the West Indian products reaches our shores; but since in this case, at least, the producer pays the tax, there is no present profit for him, or inducement for further agricultural extension. Furthermore, while permitting sugar and coffee to reach us, these tariffs are a barrier to the cultivation of the small fruits for which the West Indies are peculiarly adapted.

Concerning the future of these islands, of whatever nationality, there is but one hope and one end, and that is political or commercial annexation to the United States. As Froude has said, "The Yankee, whether we like it or not, is sovereign of these waters," and we may add that he is fast acquiring domination of the land. Every English statesman of the past fifty years has seen and predicted that such would be the destiny of the Antilles. The writer just quoted once said,[1] describing the harbor of Trinidad: "When we arrived, there were three American frigates, old wooden vessels out merely on a cruise, but heavily sparred, smart and well set up, with the Stars and Stripes floating carelessly at their sterns, as if in these Western seas, be the nominal dominion British, French, or Spanish, the American has a voice also and intends to be heard."

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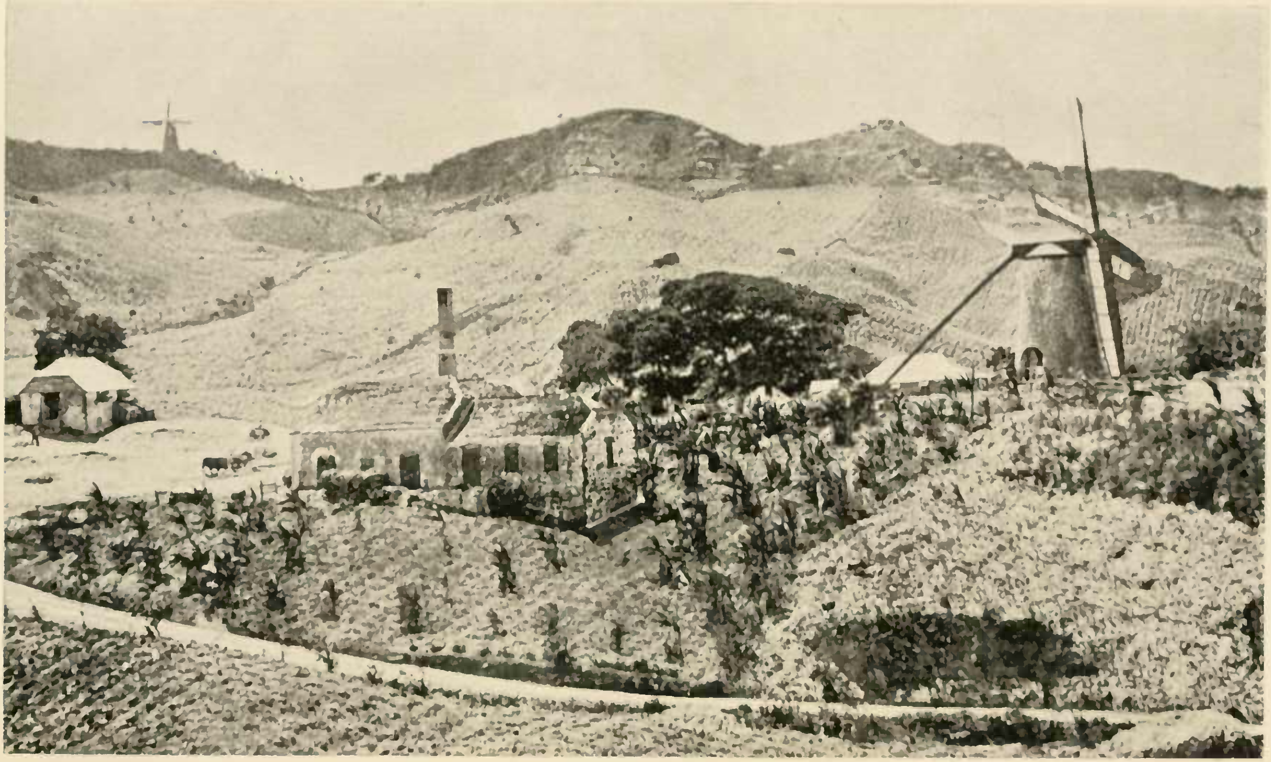
[1] J. A. Froude, "The English in the West Indies" (1887).

He little dreamed, when he wrote these words, only ten years ago, that in so short a time those wooden frigates would have disappeared from our navy, and that one of the most effective, if not one of the largest, iron-clad navies of the world, manned by these same Yankees, would be in their place, hammering at the gates of Cuba, preliminary to the establishment of American domination in the Great Antilles, just as Rodney's guns a hundred years ago determined English supremacy in the lesser islands.

The events taking place as the writing of this book closes will release at least two of the Great Antilles from their unnatural political and trade conditions, and we may count Porto Rico and Cuba as saved from the chaos. If American domination is established in Cuba and Porto Rico, there can be little reason for longer refusing San Domingo's plea for our protection. The people of that country were the first to realize the hopelessness of their political insularity and to seek a union with our country, which was declined for reasons now no longer valid.

The growing friendship between England and America may also result in some consideration of the people of the British West Indies, who before the Revolution were so closely allied to us in blood and trade. Surely it is a crime against nature and civilization that Jamaica, Barbados, Dominica, Antigua, the Bahamas, and others of the British-American islands should be allowed to die of dry-rot because of tariff laws.

The annexation of Hawaii broke down the great sentimental barrier concerning the protection of the few sugar-planters of Louisiana which has hitherto stood between us and the West Indies, and there is no doubt that our tariff laws of the future will have some mercy upon our West Indian neighbors. The West Indies and the Spanish-American republics once had in America a friend, a statesman who, in the greatness of his vision, realized the fact that the interest of our country lay in cultivating



IMPOVERISHED SUGAR-ESTATES, BARBADOS

trade relations with these people. While the reciprocity laws which were passed at his instigation were in force for a few years prior to 1882, the prosperity of the West Indies revived, and American commerce grew as it had never grown before. Their abolition, however, quickly reacted upon both parties.

There can be no doubt that if absolute free trade were established between the West Indies and the United States it would prove most beneficial to both countries, reviving the agricultural prosperity of the former, and creating a market for the manufactured products and foodstuffs of the latter. In this alone is there any hope for the future of these islands.

It may be appropriate, before closing this work, to speak a few words concerning methods of seeing the West Indies. Unless you have your own yacht, or can take one of the great ocean liners which in winter make excursions from New York, touching hastily at all of the principal ports, it will be a very difficult matter to get even a perspective of the West Indies in a single tour. But excursion steamers and yachts at their best give little idea of the true inwardness of countries and peoples. If you wish to travel rather than merely tour, you must avail yourself of the tracks of commerce.

Many steamers leave New York for the West Indies, but there is no line which takes in more than a few of the islands. Some of the best go to Cuba and Mexico without touching elsewhere; others only to Jamaica, and thence around the isthmian regions and back to New York; others go only to Haiti, Santo Domingo, or Porto Rico, and these are not first-class. One of the best companies takes passengers to the Virgin and Caribbee Islands, or rather to such islands as are not quarantined against one another. The curse of West Indian travel is quarantine. The English islands—and wisely, too—are usually in quarantine against Cuba, Haiti, Santo Domingo, Martinique, and Guadeloupe, and it is only in exceptional cases that one can get from an English island to any of these.

My advice to the traveler would be to plan two separate tours, giving a winter to each. One should be devoted to the French and Spanish islands; the other to the English colonies. The first-mentioned tour can be initiated by leaving New York by rail for Tampa, Florida, whence one can go to Havana within less than a day. Steamers can also be taken directly from New York either to Santiago or Havana, from which places coasting-vessels in time of peace skirt the island. Cuba alone is worthy of a winter's stay; but if the reader wishes to proceed farther, he can take a regular line from Havana to Haiti, and from Haiti to San Domingo, Porto Rico, and the Danish Virgin Islands as far as St. Thomas. There he will find means of reaching Martinique and Guadeloupe. The traveler who makes this journey should remember that he is almost constantly exposed to disease and contagion, and should acquire such sanitary and hygienic knowledge as will enable him to avoid them.

The second tour can be made in either of two ways. The Quebec steamship line carries travelers directly from New York to St. Thomas, and thence down the English Caribbees to Trinidad and Barbados. At Barbados connection can be made semi-weekly with the excellent steamers of the English Royal Mail, proceeding thence to Jamaica. The second and preferable method of making this tour will be to leave New York by one of the better steamers of the Atlas line for Jamaica direct. These steamers, as a rule, do not carry sugar, and one avoids the horrible stenches of sugar-ships. After seeing Jamaica the Royal Mail can be taken from thence eastward to Barbados, from which point one can use the subsidiary steamers of the same line up and down the English islands, south to Trinidad or Demerara and north to St. Thomas, where connections can be made for the United States. I will not vouch for the excellence or comforts of the average American steamer, except the larger vessels of the Atlas line. I have made delightful trips on some of the smaller and miscellaneous vessels, however, and what they lack in luxuries is compensated by the freedom of the ships and the absence of disagreeable company or overcrowding. One's companions are usually seafaring men or West Indian natives, who are always interesting.

The traveler will find the West Indies anything but unpleasant places; but the tourist will miss the luxurious American hotels, except at Bridgetown, Barbados. For my part, the absence of these has not been regretted, for one gains little insight into the life of a place when he puts up at a foreign caravansary, and the West Indies abound in small and hospitable inns where one can find pleasure and entertainment.

The stories of uncleanliness so often reported by thoughtless travelers in the tropics have little foundation. The buildings are everywhere neatly colored with paint or calcimine, freely renewed. The streets of the smallest villages, especially in Spanish communities, are paved with blocks or cobblestone, and all contain some place of recreation and attempts at ornamentation. Every Spanish village possesses one or more public squares, beautifully laid out with trees, walks, and flowers, neatly ornamented with seats and railings, and usually with a band-stand in the center. The English and French villages have botanical gardens, preserving the floral beauties of every tropical land.

Such uncleanliness as exists is not of a personal, private, or visible kind, but solely that of a municipal and public character, such as the concealed cesspools and lack of modern sewerage, above which one may walk even in some of our American towns. Perhaps the writer is prejudiced by having seen in his own country unkempt places of similar size, beside which the tropical villages are models of neatness and sanitation. Certainly no such spectacle can be seen in the tropics as the untidy public squares of our cotton belt, with their hideous architectural surroundings; while even the sight of the worst spots in the tropics has suggested the reflection that this was at least better than what I had seen in some of the cities of my own country.

My task is done. I have tried to present the West Indies as I have seen them. Americans who have not visited or studied this neighboring region may have found some of the statements and conclusions presented contrary to the popular opinion; but to the English public what I have stated will be nothing new. Great Britain's statesmen have long been aware of the condition and destiny of these American islands, and in the writings of Trollope, Froude, and others, written before the present cataclysm of tropical history, may be found prophecies which told of what has happened or is taking place. The present struggles of the Spanish creoles are but repetitions of the events which took place in Haiti a century ago, when England endeavored, unsuccessfully, to interfere on the grounds of humanity, as we have done this year. As these pages are being written, ominous fears are expressed concerning the Cuban people; but Americans will see that the intervention of our government has been justifiable on every ground, and that that intervention in behalf of the "Pearl of the Antilles" meant the beginning of a better and brighter day for all the West Indies. The establishment of trade relations in their natural channels, and the sweeping away of the antique and barbarous government of Cuba, will so influence the conditions of the other islands that they must inevitably be bettered.

INDEX

INDEX

NOTE. — *For political, historical, geographical, etc., items, see the names of the respective islands or their divisions. For specific products, animals, etc., see their respective names.*

Abaco, 300, 302
Abercrombie, Lord, organizes forces to capture Havana, 204; retakes St. Lucia, 360
Acclimation, tropical, 388–390
Acklin Island, 302, 303
Adjuntas, 152, 181
Africa, 381; overrun by the Atlanteans, 381; serpent-worship, 396. See also NEGROES; SLAVERY; SLAVE-TRADE
African dances, folk-lore, habits, etc., 227, 232, 233, 286, 287, 321, 390, 393–399
Africanization of the West Indies, 105, 106, 142, 164, 389, 390, 401
African negroes, in Haiti, 285
Agabama, Rio, 47, 126
Agassiz, Alexander, nomenclature of the Caribbean deeps, 13; deep-sea explorations by, 14, 386; on the structure of the Bahamas, 297
Agouti: in Cuba, 55; Porto Rico, 150; Santo Domingo, 250
Agua Alta, 189, 203. See also WAG WATER
Aguada, 182
Aguadilla, city, 156, 161, 179
Aguadilla, province and department, 156, 165, 179
Aguas-Buenas, 151, 181; cave, 151
Aibonito, 152, 182
Alabama, 8; superstition in, 398
Alameda, the, Santiago, 129, 130
Albemarle, Lord, captures Havana, 64
Albufera de Joyuda, Lake, 148
Aldama family, 122
Alligator-gar, the, 56
Allspice. See PIMENTO
Almendares, Rio, 116
Almonds, in Trinidad, 367
Altavela, 239
Ambergris, in the Bahamas, 300
America, Spain loses her colonies in, 65, 66
American Mediterranean, 1–3, 7–10, 13, 16, 21, 24, 34, 87, 186, 237, 383, 385; an oceanic river, 9, 10; fauna, 14–16; submarine topography, 13
Anasco, 182
Anasco, Rio, 148, 182
Anchovy Sink, 193
Andean Cordilleras, 3
Andes, the, 2–6, 13; earthquakes, 361
Andros, 298, 299, 302
Anegada, 15, 19, 21, 309, 311, 315
Anegada Passage, 16, 21, 22, 309, 318
Anglo-American Club, Santiago, 130
Angostura bitters, 368
Anguilla, 19, 23, 318, 319, 380
Anguillan Islands, 318, 325, 339
Annatto, in Jamaica, 213
Annatto Bay, 186
Anse d'Hainault, 274
Antigua, 19, 23–25, 76, 311, 319–325, 331, 404; agriculture, 323–325; area, 19; commerce, 324, 325; population, 19; superstition, 395
Antillean mountain system, 3–6, 27–31, 39, 146, 147, 150, 183, 185, 190, 240, 241, 309, 381, 382, 384, 385
Antilles, 9, 11, 14, 16, 21, 22, 30, 145, 146, 150–153, 159, 186, 201, 203, 238, 242, 248–250, 256, 257, 259, 270, 297–300, 318, 374, 381, 382, 384, 385; administrations, 32; civilization, 32; destiny, 403; east-and-west trend, 385; fauna, 55, 382; geographical situation, 3–6; geological structure, 382–386; mineral resources, 32; "the Pearl of the," 33, 53, 408; population, 32; resources, 32; rivers, 31, 32; seaboard, 31, 32; yellow fever, 60
Antimony, in Santo Domingo, 249, 272
Appalachian continent, 5
Appalachians, the, 29
Aquin, 281, 282
Arachnidæ, 56
Arawaks, 166
Arcahaie, 264
Arcas de Canasi, 42
Architecture: in Cuba, 110, 111; Porto Rico, 172, 174–178, 180, 181
Arctic Ocean, 10
Arecibo, city, 156, 179, 180
Arecibo, department, 156, 165
Arecibo, Rio, 148, 180
Ariguanabo, Lake, 47
Armendaris, Rio, 46, 110, 114
Arrowroot: in Montserrat, 335; St. Vincent, 362
Arroyo, 181
Artibonite River, Santo Domingo, 31, 241, 248, 264, 277, 278
Aruba, 25. See also ORUBA
Asia, trade with the United States, 93
Asphalt, as fuel, 380; in Barbados, 377, 380, 381; Cuba, 82–84, 380, 381; Santo Domingo, 262, 272, 381; Trinidad, 368, 369, 381
Atares, 109
Atlanta "Constitution," on superstition in the South, 397
Atlantic Ocean, 2, 8–12, 16, 35, 297, 298, 305, 318, 320, 328, 348, 366, 373, 375, 381, 382
Atlantis, the myth of, 2, 310, 381–385
Atlas Steamship Company, 218, 273, 406, 407
Atrato, Gulf of, 186
Atrato, Rio, 3, 6
Auel, 252

Austria, beet-sugar, 77
Aux Cayes, 264, 267, 269, 274, 275, 281
Avellaneda, Gertrudis Gomez de, 101
Aves Island, 22, 24, 26
Ay, Rio, 126
Azores, 373; traders from, in Antigua, 325
Azua de la Compostela, 247, 248, 259, 262

Bacot, J. T. W., enumeration of the Bahamas by, 22
Bahama Banks, 13, 383
Bahamas, 8, 10, 16, 18, 20–22, 24, 25, 35, 186, 233, 296–304, 307, 381, 382, 404; administration, 25, 375; altitude, 22; area, 18, 297; climate, 299, 301; connection with the American Revolution, 300, 302; enumeration, 22; fauna, 298, 299; finances, 300, 304; flora, 299, 300; fruits, 300; industries and commerce, 300, 301, 303; occupied by England, 300; people, 301, 302, 304; population, 18, 301–304; separation of Turks and Caicos islands from, 304; slavery, 300; Spanish raids on, 253; transportation, mail, and cable communications, 301; water-supply, 299, 303; wreckers, 300
Bahia Honda, 38, 63, 86, 118
Baird, S. F., deep-sea explorations by, 14
Baker, Captain, establishes the Boston Fruit Company, 210
Balaga Barracks, San Juan, 175
Balearic Islands, relations to Spain, 69
Baltimore, trade with Jamaica, 218, 223
Bamboos: in Jamaica, 198; Martinique, 354
Bamboula, the, 286
Bananas, use of, 60, 61: in Cuba, 76, 80, 81, 91, 133, 136; Haiti, 263, 272; Honduras, 228; Jamaica, 188, 208, 210, 212, 214, 223, 228; Martinique, 350; Nicaragua, 228; Porto Rico, 160; St. Croix, 316; St. Kitts, 331; Santo Domingo, 257, 272
Bandruco Mountains, 244
Banes, 132
Banian-tree, in the Caribbees, 327, 331
Bank of Guadeloupe, 341
Bank of Spain and Porto Rico, 175
Banks Strait, 9
Baptists, in Jamaica, 207
Baracoa, 41–43, 63, 64, 80, 81, 86, 124, 128, 132, 133, 136
Barahona, 259
Barahona Bay, 238, 244, 248
Baraqui, 82
Barbadian Antilles, 308
Barbados, 7, 12, 15, 22–24, 26, 166, 211, 307, 308, 312, 373–381, 384, 404; administration, 375; area, 19, 373, 376; boatmen, 376, 378, 379; chief justice, 392; climate, 374; the Coddrington family, 321, 322; commerce and shipping, 313, 314, 374–377, 379; communications with New York, 406; costume, 378; education, 378; emigration, 370; geology, 374, 377; George Washington in, 377; military station, 376, 391; people, 285, 377–379; population, 19, 376–378; railroad, 375, 380; relations with Virginia, 377; religion, 375; social progress, 283; tourists, 375–377, 379, 406, 407
Barbuda, 23, 25, 319–323; administration, 321, 322; area, 19, 320; fauna, 150, 321; population, 19; wrecking, 321
Barcelona, 137; trade with Cuba, 92
Barrier reefs, 37, 38
Barros, 181
Bartlett, J. R., computation of the velocity of the Gulf Stream, 10; deep-sea explorations by, 14
Bartlett Deep, 4, 13, 185
Basse End, St. Croix, 316
Basse-Terre, Guadeloupe, 338, 339, 341, 358
Basse-Terre, St. Kitts, 331
Bassett, on Haitian cannibalism, 392
Batabano, 45, 64, 87, 88, 90, 113, 117, 124, 144
Bath, Jamaica, 195, 223, 225
Bathsheba, 377
Bayamo, 63, 127
Bayamon, city, 151, 156, 182
Bayamon, department, 156, 165
Bayamon, Rio, 148
Bay du Marin, 348
Bay of Fort-de-France, 348
Bazelais' revolution, Haiti, 281
Becquia, 363
Beef Island, 309
Beeswax: in Cuba, 91, 127, 131; Porto Rico, 163
Beet-sugar, 77, 78, 137, 209, 401
Bejucal, 63, 88
Belen, College de, 113
Belgium, Haitian coffee in, 271
Bellamar, caves of, 48, 49, 122
Beriberi, 113
Bermudas, 10, 16, 24, 373; cable communications, 90; communications with the Bahamas, 301; emigration to Turks Island, 304
Berry Island, 302
Bethlehem Steel Company, 82
Bilious fever: in Cuba, 57; Haiti, 279
Biminis Islands, 302
Bird Island, 22
Birds: in the Caribbees, 328; Cuba, 56; Porto Rico, 150; Santo Domingo, 250
Bishop's Cap, 242
Bitumen. See ASPHALT
Black Eagle, the conspiracy of the, 66
Black Mountains, 264
Black River, 193, 196, 223
"Blacks," in Cuba, 103
"Blake," the deep-sea explorations of the, 14
Blake, Sir Henry, governor of Jamaica, 217; on the West Indian negro, 390
Blake, Professor W. M., on the mineral resources of San Domingo, 249, 258
Blanca, 23
Blanco, Rio, 151
Blind fish, 56
Blizzards, 12
Bloodhounds, French use of, in Haiti, 293
Blue Mountain Peak, 187–189, 197
Blue Mountains, Jamaica, 30, 50, 129, 150, 151, 187–190, 196, 197, 200, 211, 212, 240; the coffee of the, 80
Boa, the, 56
Bobadilla, Francisco de, imprisons Columbus, 252
Boca del Agua, 203. See also BOG WALK
Bodden Town, cave at, 234
Bog Walk, 203, 224
Bog Walk Cañon, 192
Bohios, 79
Bonao, 252
Bonaparte, Napoleon, infamous attack on Haiti, 293, 294
Bonnet-à-la-Évêque, 242
Bordeaux, trade with Haiti, 273
Boston, superstition in, 396, 397; trade with: Barbados, 377; Jamaica, 210, 218, 223
Boston Fruit Company, the, 210, 218
Boston "Post," account of superstition in Boston, 396, 397
Bottom, Saba, 329
Bounties, 401
Bowden, 189
Bowerbank, Dr., 220
Boyer, J. P., President of Haiti, 295
Brazil, emancipation in, 289
Breadfruit: in St. Croix, 316; St. Kitts, 331

Bribery, in Cuba, 68, 72, 73
Bridgetown, 312, 374, 375, 379, 407
Brimstone Hill, 331
Bristol, England, slave-trade of, 204
British Antilles, 306
British Guiana, 366
Broa Inlet, 48
Bronchitis, in Porto Rico, 153
Brownson Deep, 13, 146
Brujuelas River, 248
Bucaneers: in the Bahamas, 300; Cuba, 64, 125; Grand Cayman, 234; Jamaica, 204; the Lesser Antilles, 305, 306; Porto Rico, 154; St. Kitts, 332; Santo Domingo, 238, 239, 253, 261, 289; Tortola, 315. See also PIRATES
Bucaneers' Fort, Cuba, 116
"Buckra," 230–232
Buen Ayre, 19, 23, 25, 366, 372
Buff Bay, 223
Bull-fighting, in Cuba, 109
Burial of the dead: in Haiti, 286; Jamaica, 395
Busu, Mount, 246

Cabanas, 86, 87, 118
Cabanas, Rio, 47
Cabanas fortress, Havana, 109
Cabanilla, 83
Cabanilla and Maroto Railroad, 83
Cabeceras, 63
Cabeza de San Juan, 180
Cable, George W., on obiism in New Orleans, 395, 396
Cacique, saline springs of the, 151
Cacti, 114
Cadena, Cape, 147
Cadiz, trade with Cuba, 92
Cafetals, 131
Caguas, 182
Caibarien, 88, 123
Caibarien system of railways, 88
Caicos Islands, 22, 233, 298, 300, 302–304; administration, 25; connection with Jamaica, 303, 304
Caigo-o-no-Caigo, 183
Calcareous shells, 22
California, early exploration, 104; fruit-trade, 136
Calle Obispo, Havana, 115
Calle O'Reilly, Havana, 115
Calzada de Esteban, Matanzas, 121
Camaguey, 62, 63, 100, 123, 127
Camagueynos, the, 100
Cambridge Basin, 193
Cambridge University, England, work in Jamaica, 207
Caminos del Rey, 90
Campos, Captain-General Martinez, his humane administration, 69, 70, 73
"Camps in the Caribbees" (Ober), cited, 338
Camu, River, 262
Camuy, 161
Camuy, Rio, 148
Canada, trade with Jamaica, 215
Canal Mountains, 246
Canary Islands, natives in Cuba, 142; relation to Spain, 69; sugar-cane introduced into Cuba from, 64
Cane; cane-sugar. See SUGAR
Cannibalism, 283, 287, 392, 393, 398
Canonau, 363
Cano Tiburones, Lake, 148
Cantera, 110
Cantera family, 126
Cañuelo fortress, Porto Rico, 174
Caparra, 154
Cape Cruz, 29, 37, 39, 40
Cape Dame Marie, 281
Cape Gracias á Dios, 186
Cape Haitien, 245, 262, 267, 269, 273–277, 293; cable communications, 91; bombarded by the British, 275; earthquakes, 275, 276
Cape Limbé, 244
Cape Maysi, 35, 44, 132, 136
Cape Plaisance, 244
Cape San Antonio, 35, 37, 38, 40
Cape Tiburon, 186, 274, 281
Caracas, earthquake in, 361
Caraibe, the, 338
Carbet, Mount, 345
Carboniferous period, 383
Cardenas, 63, 84, 88, 98, 107, 120, 122, 123
Cardenas Bay, 83
Caribbean Sea, the, 2, 4–11, 14, 16–18, 21, 24, 29, 30, 34, 35, 44, 130, 145, 186, 188, 218, 221, 234, 247, 248, 281, 297, 305, 306, 318, 345, 366, 371, 382, 383, 385. See also AMERICAN MEDITERRANEAN
Caribbee Islands, 21–24, 26, 297, 308, 309, 314, 318, 345, 357–361, 363–366, 373, 375, 380, 381, 384, 385; area, 19; climate, 327, 328, 342; communications with New York, 405, 406; fauna, 328; flora, 327, 331; geological features, 327–332, 334, 338–340, 342; population, 19; the volcanic, 326–336
Caribs: in Dominica, 343, 344; Martinique, 354, 355; Porto Rico, 166; St. Vincent, 362; Trinidad, 369
Carnival, in Havana, 111, 112
Carolina, connection with the Bahamas, 300
Carpet-baggers, in Cuba, 68
Carriacou, 363
Casa Blanca, San Juan, 175
Casa de Beneficencia: in Havana, 113; San Juan, 175
Casilda, 89, 125, 126
Cassava: in Barbados, 378; Jamaica, 231; Trinidad, 369
Caste: in the United States, 390, 402; the West Indies, 390, 391
Castillo del Principe, 110
Castle of San Juan, 177
Castries, 359
Cataño, 174
Catarrh, in Porto Rico, 153
Catarro, the, 55
Cat Island, 302, 303
Cats: in Barbuda, 321; Cat Island, 303
Cattle: in Anegada, 315; Anguilla, 319; the Antilles, 32; Barbuda, 321; the Caribbees, 20; Cuba, 45, 78, 81, 137; Curaçao, 371; Dominica, 342; Grand Cayman, 234; Jamaica, 198, 200, 213, 225; Porto Rico, 159–161, 168, 178, 179, 181, 183; Santo Domingo, 250, 251, 253, 257, 262
Caucasian race, in the West Indies, 388, 389, 400
Cauto River, Cuba, 31, 40, 45, 47, 76, 127, 130
Cave Hall Pen, 196
Cave of Mexico, 196
Cave River, 196
Caverns, in Cuba, 47–49
Cave Valley, 192
Cayenne, immigration, 344, 359
Cayey, 152, 181
Cayman, the: in the Isle of Pines, 56; Santo Domingo, 250
Cayman Brac, 235
Cayman Islands, 25, 234, 235
Cayo del Sabinal, 38
Cayo Romano, 36, 38, 85
Cayos de las Doce Leguas, 38
Cayo Smith, 128
Cedar: in Cuba, 53, 131; Grand Cayman, 234; Jamaica, 198; Martinique, 346; Porto Rico, 149; Santo Domingo, 257

Cedrela odorata, in Cuba, 53
Ceiba-tree: in Jamaica, 395; St. Croix, 316; Trinidad, 367
Central America, 9, 17, 35, 186, 383; the continent of, 1, 2, 4-6; the crocodile of, 56; in prehistoric times, 2; islands formed from continent of, 24; Spain loses her colonies in, 65, 66; volcanoes, 33
Central American archipelago, 2
Central Dominican Railway, 255
Centrals, 77, 78
"Century Magazine," cited, 58
Cereus, 114
Cerro, the, 116
Cerro del Oro, 40
Cerro de Sal, 259
Cerro of Columbus, 262
Cerro Santo, 245
Ceuta, the Spanish prison at, 69
Chaillé, Dr. S. E., on the sanitary condition of Cuba, 57
Chalcedony, in Santo Domingo, 249
Champ de Mars, Port-au-Prince, 280
Chapapote, 83. See also Asphalt
Charlestown, Nevis, 333
Charlotte Amalia, 312
Charms, belief in, 394-399
Chester River, 196
Chesterfield Sink, 193
Chiapas, 4
Chimborazo, 13
China, trade with the United States, 93
Chinese: in Cuba, 99, 103; Jamaica, 226
Chocolate. See Cocoa
Cholera infantum, 58
Chorerra, 46, 116
Christian Brothers, in Haiti, 269
Christian Church, in Jamaica, 207
Christiansted, St. Croix, 316
Christophe, King, 242; his palace of Sans Souci, 276
Christ's Church, Barbados, 377
Church of England, in Jamaica, 207
Ciales, 151
Cibao Mountains, 241, 242, 246, 247
Cibuco, Rio, 148
Cidra, 181
Cienaga, Lake, 148
Cienagas, 44, 46, 143
Cienfuegos, 37, 42, 46, 63, 79, 84, 86-88, 98, 107, 122-124, 126, 141
Cifuentas, 88
Cigars, Havana, 87. See also Tobacco
Cimarrones, in Jamaica, 230
Cinchona, in Jamaica, 189, 214
Cinco Reales, 129
Cinco Villas, 62, 63
Cinnamon, in Trinidad, 367
Civil War, Nassau, N. P., in the, 302
Clara, valley of, Cuba, 49
Clarendon Mountains, 191
Clarendon Parish, 190, 195, 196
Clarendon Valley, 190-193
Clay, in Cuba, 85
Cleve, P. T., on the geology of Porto Rico, 150, 151
Cleveland, Grover, his rabbit's-foot charm, 398
Cloud-bursts, in the Caribbees, 328, 336
Clouet, General, 124
Club Nautica, Santiago, 130
Club San Carlos, Santiago, 130
Clyde Steamship Company, Haitian service, 273
Coal: in Porto Rico, 162; Santo Domingo, 249; non-existent in Cuba, 84
Coamo, 151
Coamo, Rio, 148
Coast Survey, work of the, 14
Coati, the, in Santo Domingo, 250
Cobre, 84, 89
Cobre, Rio, 192, 197
Cochinos Inlet, 48
Cock-fighting, in Porto Rico, 168
Cocoa and chocolate: in the Antilles, 32; Cuba, 133; Dominica, 342, 344; Grenada, 364; Guadeloupe, 340; Jamaica, 208, 213; Martinique, 348-350; Porto Rico, 160, 163, 178, 179; Santo Domingo, 255-257, 269, 271, 281, 289; Trinidad, 368
Cocoanuts: in the Bahamas, 300; Cuba, 133; Grand Cayman, 235; Haiti, 272; Jamaica, 188, 208, 224, 228, 235; Porto Rico, 179; St. Croix, 316; St. Thomas, 312; Trinidad, 368
Cocoloba macrophylla, in Porto Rico, 149
Cocos reefs, 38
Coco-wood, 53
Coddrington family, owners of Barbuda, 321, 322
Code Napoléon, in Haiti, 266
Coffee: in the Antilles, 31, 32; Cuba, 76, 80, 131, 132, 136, 137; Dominica, 344; Guadeloupe, 340; Jamaica, 80, 189, 208, 211, 212, 215, 231; Martinique, 348, 349; Porto Rico, 159-161, 163, 178-182; Santo Domingo, 255-257, 269-272, 281, 289; United States, 403; West Indies, 403
College de Belen, the, 113
College de St. Ildefonsa, San Juan, 176
College of the Sacred Heart of Jesus, San Juan, 175
Colombia, 2-4, 8; protectorate of Haiti, 254; topography, 240; trade with Jamaica, 217
Colon, 7, 63, 88, 98, 211, 375
"Colored," the word, 103
Colored people. See Negroes
Columbus, Bartholomew, imprisonment of, 252
Columbus, Christopher, 128, 132; burial-place of his family, 261; castle of, at San Domingo city, 261; discovers: Dominica, 344; Montserrat, 334; Nevis, 333; St. Christopher, 332; Trinidad, 367; the Virgin Islands, 309; first landfall, 300; founds: Concepcion de la Vega, 262; Port de Paix, 276; Puerta Plata, 262; his name for Cuba, 33; imprisonment, 252; in: Haiti, 276; Porto Rico, 154, 179; Santo Domingo, 237, 245, 252; the "Jardines" of, 37, 38; last voyage, 123; second voyage, 252; statues of, 122; supposed burial-place, 112, 113, 261; third voyage, 252
Columbus, Diego, 132; castle built by, 261; colonizes Cuba, 63; settles Santiago de la Vega, 222
Compagnie Générale Transatlantique, Haitian service, 273
Concepcion, Matanzas, 122
Concepcion de la Vega, 252, 262
Concepcion sugar-estate, 77
Conch, the pearl, 303
"Conchs," in the Bahamas, 301
Congregationalists, in Jamaica, 207
Conjuring, in the United States, 394-399
Consejo, cave of, 180
Constancia asphaltum-mine, 84
Constancia sugar-estate, 89
Constant Spring Hotel, Kingston, 221
Constanzia, Vale of, 247, 248
Consumption: in Cuba, 143; Haiti, 279; Porto Rico, 153
Content River, 195
Coolies: in Cuba, 103; Jamaica, 226; Trinidad, 369, 370
Coopers Island, 310
Copellanias, Rio, 47

Copper: in the Antilles, 32; Cuba, 82, 84, 85, 130, 141, 380; Santo Domingo, 258, 272, 380
Coquina, 110
Coral and coral reefs, 15, 16, 18, 20–24, 37, 85, 144, 151, 234, 239, 297, 310, 339, 373, 374, 385
Coral Bay, St. John, 314
Corazal, 151
Cordilleran continent, the, 5
Cordilleras, the, 2–6, 27, 39, 383
Corn: in Anguilla, 319; Cuba, 76; Curaçao, 371; Jamaica, 214; Porto Rico, 168
Cornilliac, Dr. J. J. J., on the women of Martinique, 355
Cornwall County, Jamaica, 205
Corral Falso, 88
Cortes, Porto Rico represented in the, 155
Cortez, Hernando, in Trinidad, 368
Costa Rica, 4, 6, 8, 217, 228
Cotton: in Martinique, 348; Santo Domingo, 269, 271; Tobago, 371
Cow and Bull, the, 299
Crab Island, 21, 183, 309, 311
Cranes Point, 377
Creoles: in Cuba, 67, 73, 101, 103, 104, 127; Curaçao, 371; the Lesser Antilles, 307; Porto Rico, 166, 170; the Virgin Islands, 311
Cretaceous period and formations, 41, 43, 83, 249, 310, 383, 384
Crittenden, the shooting of, 109
Crocodiles: in the Bahamas, 298; Central America, 56; Florida, 56; Isle of Pines, 56; Jamaica, 56, 199; Santo Domingo, 249
Croix des Bouquets, La, 280, 282
Cromwell, Oliver, seizes Jamaica, 203
Crooked Island, 302, 303
Cruces, 88
Cruelty, in Haiti, 289
"Cruising among the Caribbees" (Stoddard), cited, 330
Crustacea, 14, 15
Cruz, Cape, 29, 37, 39, 40
Cuba, 5, 9, 10, 12, 16–18, 21, 22, 24, 25, 30, 33–144, 183, 185, 186, 190, 191, 194, 198, 200–202, 208, 236, 238–240, 249, 252, 256, 258, 269, 274, 277, 298, 376, 380, 381, 383–385, 400, 405, 406, 408; administrative departments, 63; Africanization of, 142, 164; agriculture, 64, 65, 76–81, 91, 135–139; archbishopric, 157; architecture, 121, 124, 125, 128–130; area, 18, 34–36; autonomy, 67, 70, 99, 156; baths, 49; beauty in, 101, 102; blind fish, 56; building-material, 85; business affairs, 139; cable communications, 90, 91, 276; captain-general, 69–71; carpet-bag government, 68; caverns, 47–49, 122; Chinese, 99, 103; cities, 107–119; civilization, 32; climate, 34, 50–52, 113, 135; coastline and harbors, 34–38, 46, 48, 83, 86, 87, 109, 110, 118, 120, 121, 123–125, 127–129, 131–133, 138, 141; colonization, 63, 64; commerce and transportation, 86–96; communications with New York, 405, 406; communications with other islands, 87; contrasted with Porto Rico, 145, 146; coolies, 103; courts, 70; crime, 101; a crown colony, 69, 70; declares war against Napoleon, 65; decree of 1825, 65, 71; despotism in, 65–75, 99, 104, 106; diseases and sickness, 52, 53, 114; disenfranchisement, 101; earthquakes, 52; ecclesiastical government, 74, 75; education, 70, 73–75, 113; emancipation, 103, 104; emigration to San Domingo, 255; end of the Spanish régime, 134 et seq.; eras of prosperity, 64, 67; executions, 100; explorations, 39, 64; extermination of the natives, 64; fauna, 55, 56, 113; finances, 72, 73; first governor, 108; fish, 47, 56; flora, 34, 38, 40, 41, 48, 53–55, 113, 129; fruits, 53, 80, 81, 94, 95; fundamental law, 65, 71; future of the island, 134–144; geographical situation, 1, 3–5; geographic subdivisions, 62–75; geology, 384; governing class, 65, 66, 68, 72–75, 99, 100; highways, 89, 90; homes, 107, 108; hurricanes: 1786, 12; 1846, 52; 1896, 52; importance, 34, 35; ingenuity of insurgents, 55; insanity, 113; insurgents' refuges and strongholds, 42, 45; isolation, 87; "The Key of the New World," 33; labor, 105, 135, 138, 139, 141, 142, 389; lack of energy in, 98, 102; lakes, 47; land and mineral titles, 135; Las Casas' administration, 64, 65; leprosy, 113, 114; losses of Cuban and Spanish forces, 67; lottery, 72; loyalty to Spain (the "Ever-faithful Island"), 65, 66, 92; maps of, 36; maritime activity, 64; marriage, 75, 102–104; massacres, 100, 106; migration from Jamaica to, 203; mineral resources, 81–85, 91, 94, 130, 131, 136, 141, 142; mineral springs, 49; miscegenation, 104; mountains, 27–29, 34, 36, 37, 39–47, 50, 125, 128–131, 133; natural bridges, 47, 49; natural divisions, 62; never connected with the American continent, 41; "The Pearl of the Antilles," 33, 53; people, 97–106, 387, 389; physical features, 33 et seq.; population, 18, 97, 106; poultry, 81; the press, 71, 72; public improvements, 65, 135, 138–141; quarantine against, 87, 405; railways, 88, 89, 122–124, 126, 127, 130, 137–140; rainfall, 61, 90; representation in the Cortes, 70; resources, 76–85; revolts in: 1829, 66; 1844, 66; 1849, 66, 67; 1850, 66, 67; 1851, 66, 67, 109; 1855, 67; 1868, 66, 67, 108, 127; 1895, 66, 68; rights of speech, 71; rivers, 31, 45–48, 60, 90; sanitation, 57–61, 70, 73, 107, 113, 114, 140, 142, 389; ship-building, 64; shipping, 109, 120, 122–125, 129, 133, 141; size compared with Spain, 36; slave plot, 67; slavery, 64, 204, 284; snow, 51; social progress, 283; Spanish army, 69; Spanish rule, 25, 291; spoliation of, 65–75, 78, 92, 141; starvation in, 106; summer resorts, 57; tariff, 136; telegraph lines, 90, 91; timber, 41, 53, 54, 81, 91, 94; torture in, 71; trade with: Great Britain, 92; Porto Rico, 159, 160, 162, 179; Spain, 92, 93; United States, 92–95; United States' intervention in, 95, 96, 404, 408; virtue in, 101, 102; waterfalls, 47, 49; wealth, 91; as a winter resort, 142, 143; yellow fever, 113, 121.
Cubans, their cause, 101; the Cuba of the, 63; education and refinement, 101, 102; exiled, 101; family ties, 102; hospitality, 102; in Jamaica, 211; penal colony of revolutionist, 144; spoliation and extermination of, 65–75; women, 101–103
"Cuban Saratoga," the, 49
Cuchillas, the, 42, 43, 48, 80
Cul-de-sac, Haiti, 264, 280
Culebra, 21, 24, 182, 183, 309, 311
Culebrinas, Rio, 148
Culebrita, 21
Cumaná, 366
Cuna-Cuna, 189
Cuna-Cuna Pass, 223
Cupey Mountain, Cuba, 49
Curaçao, 23, 25, 151, 306, 366, 371, 372; administration, 26, 372; area, 19, 371; liqueur, 372; people, 388; population, 19, 371
Cutting-grass-spots, 195
Cuyajabos, Rio, 47
Cuyul, Rio, 151
Cyclidæ, the, 56
Cyprinodontidæ, the, 56

Dame Marie, Cape, 281
Dancing, in Haiti, 286, 287
Danish Antilles, 25, 26, 306, 311-316; visiting, 406
Danish people, in the West Indies, 388
Davy, Dr., on the Grenadines, 363
Deans River, 195
Decree of 1825, Cuba, 65, 71
Deep-sea explorations, 13-16
Deer, in Barbuda, 321, 322
De Grasse, Admiral, defeated by Rodney, 360, 404
De la Hotte Mountains, 244
Delgris, S. T., suicide of negroes under, 340
Demerara, trade with Barbados, 375; visiting, 406
Denmark, West Indian possessions, 25, 26, 306, 311-316; tries to sell St. Thomas, 313
Department of the North, Haiti, 267
Department of the South, Haiti, 267
Descalabrado, Rio, 148
Descourtils, M. S., researches into Haitian flora, 264
Désirade, 19, 23, 25, 325, 341, 373
Despoblado, 250, 251
Despotism: in Cuba, 65-75, 99, 104, 106; Haiti, 265, 266
Dessalines, Jacques, Emperor of Haiti, 254, 265; issues declaration of Haitian independence, 277
Deux Mamelles, 338
Dhool-dhools, 331
Dialect: in Haiti, 286; Jamaica, 232, 233, 286
Diamond Rock, Martinique, 354
Diana Key, 84
Diarrhea: in Cuba, 58; Jamaica, 200
Dickens, Charles, on the "nigger," 227
Diputacion Provincial, San Juan, 175
Divi-divi, in St. Thomas, 314
"Doctor," the, 11
Dogs, in Barbuda, 321
Dogs, the, 319
Dominica, 23-25, 151, 236, 306, 326, 328, 329, 337, 342-345, 352, 357-360, 401, 403, 404; administration, 344; agriculture, 343, 344; area, 19, 342; climate, 342; commerce, 342-344; discovery, 344; emigration, 344; population, 19, 343; religion, 343
Dominicans, 236
Dondon, 242, 282
Dougald, Donald, of Barbuda, 322
Drinking-water: in Cuba, 140, 141; in the tropics, 60
Drouillard, 280
Drown Island, 315
Dry Harbor, 196
Dry River, 196
Dumas, Alexandre, Sr., 281, 388
"Duppy," the, 229, 232, 395
Durocher, Colonel, engineering work of, 244
Dutch, in the West Indies, 388
Dutch West Indies, 306, 366, 371, 372
Dyewoods: in Grand Cayman, 234; Jamaica, 213
Dysentery: in Cuba, 57, 58, 140; Jamaica, 200; Porto Rico, 153

Earthquakes, reputed destruction of Atlantis, 381; at Cape Haitien, 275, 276; in Caracas, 361; Cuba, 52; Guadeloupe, 341; Haiti, 275, 276, 280; Jamaica, 221; Martinique, 348, 353; Port-au-Prince, 280; St. Vincent, 361; Santo Domingo, 261, 280; West Indies, 52, 305, 400; in 1693, 221; 1770, 280; 1812, 361; 1839, 353; 1842, 275; 1843, 341
Eastern Department of Cuba, 63
Ebony: in Jamaica, 213; Porto Rico, 149
Education: in Cuba, 70, 73-75, 113; Jamaica, 206, 207, 214; Porto Rico, 157
Edwards, Bryan, on the prosperity of Jamaica, 204
Eggers, Baron H. F. A., on the flora of Porto Rico, 149
Eggs, in Jamaica, 235
El Cobre, 130
Electric roads, 140
Eleuthera, 298, 299, 302, 303
Elfs, belief in, 396
El Junki, 133
El Potrerillo, 42
El Templada, mineral springs of, 49
Emancipation: in Brazil, 289; Cuba, 103, 104; Guadeloupe, 340; Haiti, 288, 289, 291, 294; Jamaica, 204, 205; St. Kitts, 331; St. Thomas, 314; Santo Domingo, 237; Tortola, 315; United States, 103; West Indies, 103, 400
Engano Point, 241
England, American colonial revolution, 290, 291; bucaneers of, 64, 253, 289; captures Havana, 64; Cuban iron-trade, 82; education of Cubans in, 101; emigration to Jamaica, 204; expedition to Haiti, 292; naval preëminence, 360; occupies the Bahamas, 300; struggles in the West Indies, 64, 203, 238, 253, 292, 300, 360, 368, 400, 404; struggle with France, 360; treaty of Paris (1763), 64; urges the independence of Haiti, 294. See also GREAT BRITAIN
English Antilles, 306
"English in the West Indies, The," (Froude), cited, 403
English race in the West Indies, 387-390
Ennery, 278
Enriquillo, Laguna, 248
Ensenada Honda, 158
Eocene epoch and formations, 40, 41, 83, 374
Epping Forest Cave, 197
Equatorial current, the, 10, 23
Ermita del Santo Cristo Church, San Juan, 175
Escalera de Jaruco, 42
Escaliers, Les, 244
Escribaños, 182
Esperanza, 126
Espinosa, on the Porto Rican people, 166
Estevan, an early negro explorer, 104
Estrella, La, 128
Étang Duricie, 281
Étang Salé, 249
Europe, beet-sugar in, 137; cable communications with Cuba, 90; conquered by the Atlanteans, 381; trade with: Porto Rico, 162; Trinidad, 367
"Ever-faithful Island," the, 65
Evil spirits, belief in, 394-399
Ewarton, 192
Executions, in Cuba, 100
Exuma, 302

Fairies, belief in, 396
Fajardo, 158, 180, 181
Fajardo, Rio, 148
Fallow-deer, in Barbuda, 321, 322
Falmouth, Jamaica, 223
Familiarity, in the United States, 402
Fer-de-lance: in the Caribbees, 328; Martinique, 347, 351; St. Lucia, 359
Fevers: in Cuba, 57-61, 140, 143; Haiti, 279; Jamaica, 200, 201; Porto Rico, 153; West Indies, 388, 389
Fig-tree Church, Nevis, 333
Filibustering expeditions, 81
Fish: in the Bahamas, 20, 299; Caribbees, 20; Cuba, 47, 56; Great Antilles, 20; Haiti,

Fish—*continued*
281; Jamaica, 199; Martinique, 347, 350; Porto Rico, 150, 162, 179; Trinidad, 369
Flamencos, Lake, 148
Flamingos, in Porto Rico, 150
Flinter, Colonel, on the history and people of Porto Rico, 154, 167, 168
Flogging, in Cuba, 67
Flor de Carillo, Trinidad city, 125
Flor de Cuba, 123
Florida, 7-10, 14, 15, 24, 186, 296-298, 301, 302, 381, 383, 406; communications with the Bahamas, 301, 302; crocodiles, 56; Cubans in, 102; former connection with South America, 2; fruit industry, 136; the great frost, 210; oranges, 81; sterile lands, 33; tobacco, 102
Florida Capes, 8
Florida Keys, the, 15, 18
Florida, Strait of. See Strait of Florida
Flying fish, in Barbados, 376
Folk-lore, 393-399; in France, 398, 399; Haiti, 286; Jamaica, 227, 232, 233, 286
Food-stuffs, in the Antilles, 32
Foraminifers, 16
Fort-de-France, 273, 348, 349, 353
Fort Gustave, St. Bartholomew, 319
Fort Liberté, 274
Fort Royal, 353
Fortunate, on Haiti, 282
Fortune Islands, 298, 299, 301, 302
Fossils, 14
France, West Indian possessions, 25: Dominica, 343, 344; Grenada, 364; Guadeloupe, 337-342; Martinique, 348; Montserrat, 334; St. Bartholomew, 319, 320; St. Kitts, 332; St. Lucia, 358, 360; St. Martin, 402; Santo Domingo, 237-239, 253, 254, 289; bucaneers and pirates of, 64, 253, 289; cable communication with Haiti, 276; cruelty in the West Indies, 170; diplomatic relations with Haiti, 270; education of Cubans in, 101; education of Haitians in, 285, 286; England's struggle with, 360; folk-lore, 398, 399; Haitian coffee in, 271; influence of the Revolution in the West Indies, 289, 290; loses Haiti, 254, 294; loss of West Indian possessions, 360; occupation of Haiti, 273, 275-277, 293; precipitates troubles in Haiti, 291, 293; revolt of Haiti, 65; struggles for the West Indies, 368, 400; trade with: Haiti, 269, 271, 273; Porto Rico, 162; witchcraft in, 394, 398, 399
Frederiksted, St. Croix, 316
Freebooting, in the West Indies, 400. See also Bucaneers; Pirates
Freemasonry, in Haiti, 267, 268
Free trade, 401, 405
French Antilles, 306
French race, in the West Indies, 387, 388, 390, 394, 398, 399
French West Indies, visiting the, 406
Friends of the Blacks, the, 291
Frou, 282
Froude, J. A., on the West Indies, 216, 225, 343, 344, 387, 403, 408
Fruits: in the Antilles, 31, 32; Cuba, 80, 81, 94, 95, 131-133, 135, 136; Jamaica, 223, 231; Porto Rico, 160, 178, 179, 181-183; West Indies, 388, 403; use of, 60, 61. See also specific kinds
Funda, Lake, 249
Funeral customs, in Haiti, 286
Furey, 280
Fustic, in Cuba, 53, 81; Jamaica, 198

Gabb, W. M., investigates mineral resources of Santo Domingo, 245, 249, 257
Galapagos Islands, the tortoise in, 150
Galveston, Texas, 7, 186
Gambling, in Porto Rico, 167
Gas, in Cuba, 380
Genoa, the lemons of, 136
Georgia, emigration to Turks Island, 304; superstition, 397, 398
Germany, beet-sugar, 77; commercial influence in San Domingo, 261; diplomatic relations with Haiti, 270; occupation of Haiti, 277; trade with: Haiti, 269, 274; Porto Rico, 162
Geysers, in Dominica, 342
Gibara, 42, 86, 132
Gibaros, in Porto Rico, 166-168
" Gibraltar of the New World," the, 277
" Gibraltar of the West Indies," the, 331
Ginger, in Jamaica, 208, 213, 215
Ginger Island, 310
Glaciers, in North America, 385
Glass Window, Eleuthera, 299
Gnomes, belief in, 396
Goats: in Anegada, 315; Barbuda, 321; Cuba, 81; Santo Domingo, 250, 255
" Goat without horns," the, 229
Gobiernos, 63
Gold: in the Antilles, 32; Cuba, 64, 82, 380; Porto Rico, 151; Santo Domingo, 252, 253, 257, 258, 272, 380; Trinidad, 367
Gomez, General, 69
Gonaïves, 264, 275, 277, 278
Gonaïves, Gulf of, 244, 248, 252, 278
Gonave Island, 239, 244, 264
Gonave Peninsula, 242
Gordontown, 188
Gosse, P. H., on the fauna of Jamaica, 199
Gottschalk, introduces Adelina Patti in Santiago, 130
Gourde, the, 269
Govadonga, San Juan, 175
Gracias á Dios, Cape, 4, 186
Granadilla, the, 53
Grand Bourg, 342
Grand Cave, 197
Grand Cayman, 234, 235
Grande Anse du Diamante, 348, 349, 353, 354
Grande Rivière du Nord, 282
Grande-Terre, Guadeloupe, 319, 325, 339, 341, 373
Grand Savanna, Dominica, 343
Grand Seminary of Haiti, Paris, 268
Grand Turk Island, 303, 304
Gran Hotel Inglaterra, La, Havana, 110, 111
Gran Piedra, La, 40
Grape-fruit, in Jamaica, 210
Grapes, in Jamaica, 211
Grazing, in Cuba, 81, 137
Great Abaco, 299, 302
Great Antilles, the, 6, 8, 12, 20-24, 27-33, 146, 185, 236, 238, 240, 296, 305, 309, 310, 380, 382-385; American domination in the, 404; area, 18, 21; climate, topography, etc., 21; the geographic center, 236; mountains, 39; population, 18, 32; rivers, 31, 32
Great Bahama, 302
Great Bahama Bank, 298
Great Britain, abolition of slavery, 204; American tribute to, 222; beneficence of her rule, 32, 74; bombards Cape Haitien, 275; colonial system, 90, 105, 201-208, 214-217, 229, 230, 233, 300, 304, 311, 325, 368-370, 375, 401-404, 408; diplomatic relations with Haiti, 270; friendship for the United States, 404; intervention in Haiti, 408; loss of American colonies, 360; possessions in the West Indies, 24-26: Bahamas, 300; Dominica, 344; Guadeloupe, 340; Haiti, 277; Martinique, 348, 354; Montserrat, 334, 335; St. Kitts, 332; St. Lucia, 358-360; Virgin Islands, 311, 314, 315; respect for law, 402; trade with: Bahamas,

Great Britain—*continued* 301; Barbados, 375, 377; Cuba, 92; Guadeloupe, 341; Haiti, 269, 273; Jamaica, 211, 215, 218; Porto Rico, 159, 162; Trinidad, 367; triumph over yellow fever, 59; West Indian naval stations, 359. See also ENGLAND
"Great hurricane" of 1786, 12
Great Inagua, 298
Great Plains, the, 5, 11
Great River, 190, 191, 193, 196
Great Sound, 234
Green Bay, 201
Green Key, 298
Grenada, 19, 22, 23, 25, 26, 326, 360, 362–365, 370
Grenadines, the, 18, 19, 22, 23, 25, 26, 360, 363, 364
Gros Morne, 277, 278, 282
Grosse Montagne, 338
Guadeloupe, 12, 15, 23, 25, 34, 151, 306, 319, 325, 326, 328, 329, 337–342, 344, 345, 352, 357, 358, 360, 373, 403; administration, 25, 341; agriculture, 338–340; area, 19, 338; climate, 339; commerce, 341; communications, 337, 340; currency, 341; education, 341; finances, 341; geological features, 338–340; mountains, 338; people, 338, 340, 388; population, 19, 342; quarantine against, 405; trade with Porto Rico, 159, 160; visiting, 406
Guajaba, 38
Guajataca, Rio, 148
Guamani, Rio, 148
Guanabacoa, 57, 63, 84, 98, 117
Guanajay, 63, 88, 118
Guanajay, Rio, 47
Guanajibo, Rio, 148, 181
Guanica, 151, 158
Guanica, Lake, 148
Guantanamo, 37, 39, 44, 63, 86, 89, 90, 131, 132, 136, 141
Guarabo, Rio, 125
Guatemala, 4, 6, 8, 228
Guayama, city, 156
Guayama, department, 156, 165, 181
Guayanes, Rio, 148
Guiana, 377
Guinea-fowl, in Barbuda, 321
Guinea-grass: in Grand Cayman, 234; St. Thomas, 312; Santo Domingo, 248
Guines, 63, 88, 117
Gulf of Atrato, 186
Gulf of Gonaïves, 244, 248, 252, 278
Gulf of Honduras, the, 9, 186
Gulf of Maracaibo, 365
Gulf of Mexico, 2, 5, 7–11, 13, 16, 17, 21, 34, 35, 104, 382, 385
Gulf of Paria, 366, 367
Gulf of San Nicolas, 252
Gulf Stream, 9, 10, 299, 383
Gun Key, 234
Gurabo, 151

Habana, foundation of, 64
Haiti, 26, 35, 104, 105, 186, 201, 202, 230, 238, 244, 246, 248, 250–254, 256, 259, 338, 380, 385; administration, 25, 266; agriculture, 271, 272, 280; area, 263; army, 266, 267; autonomy, 291; cable communication, 276; cannibalism, 392; ceded to France, 254; citizenship, 265, 266; civilization, 32; climate, 276, 277, 279, 280; coast-line and harbors, 245, 264, 273–278, 280–282; Code Napoléon, 266; commerce, 269, 273, 274; communications with: New York, 405, 406; St. Thomas, 313; concordat with Rome, 267, 268; dialect, 286; diplomatic relations, 270; diseases, 279; earthquakes, 275, 276, 280; education, 265, 268, 269, 285; empire of Dessalines, 254; English and Spanish expeditions to, 292; expulsion of the French from, 294; finances, 269; financial probity, 270; flora, 264; French cruelties in, 170; French invasion of, 293; French possession, 289; fruit, 263, 272; hostility to San Domingo, 251, 252, 254; immigration, 295; islands attached to, 264; language, 285, 286; legislation, 266; maroons, 242; minerals, 272; money, 269; morality, 286–289; mountains, 27–29, 39, 263, 264, 279, 280; name, 236, 240; navy, 267; negro nomenclature, 287; peninsulas, 29, 30; people, 170, 267–269, 284–295, 388, 392, 393, 396, 398, 399; population, 283, 284; post-office, 272; press, 265; quarantine against, 405; race hatred in, 291, 292, 294; railways, 276, 278; rainfall, 273; recognition of its independence, 267; religion, 265, 267–269; the republic, 236, 242, 254, 263–295; revolt in, 65; rivers, 264, 276, 278, 281, 282; roads, 272, 273; shipping, 272–275, 282; slavery, 284, 285, 287, 289–293; social progress, 283, 287–289, 294, 295; Spanish possession, 289; stormy history, 284, 289–295; struggles, 408; superstition, 267, 283, 287, 290; union with San Domingo, 295; various forms of government, 294, 295; vaudouxism, 393, 396, 398, 399; vicissitudes in her history, 254; visiting, 406
Haitian Sea, the, 9
Halifax, N. S., cable communications, 90; trade and communications with the Bahamas, 301, 303
Hamburg-American Packet Company, West Indian service, 313
Hamburg Mail Steamship Company, Haitian service, 274
"Hāmīky," 203
Hamilton, Alexander, 333, 388
Hanover, 191, 195
Harbor Island, 302
Harmigueros, 151
"Harnt," the, 229; in the United States, 395. See also SUPERSTITION
Harris, Joel Chandler, 233
Hart, Captain John S., Cuban interests, 81; filibustering, 81; conviction, 81
Hatillo Maimon, 245
Haunts, belief in, 395. See also "HARNTS"; SUPERSTITION
Havana, 35, 38, 40–42, 45–48, 62–66, 69, 71, 74, 75, 85–90, 107–119, 122, 123, 126, 127, 141, 145, 185, 211, 260; bishopric, 74; buildings, 110; cable communications, 90; captured by the English, 64, 204; carnival, 117; cathedral, 74, 112, 113; charities, 113; cigars, 80, 87; climate, 50–52; Columbus's remains, 261; costume, 111, 116; diseases, 58, 59; foreign trade, 115; fortifications, 64; foundation, 64, 108; Gran Hotel Inglaterra, 110, 111; hurricane of 1846, 52; industries, 117; the "Key of the New World," 33, 108; lottery, 72; mortality, 57, 117; motto, 33, 108; people, 59, 103, 108, 117; population, 98, 99; the Prado, 111; sanitation, 118, 314; society, 116, 117; Tacon's improvements in, 66, 71; theater and opera, 111, 112; tonnage, 87; trade with Haiti, 274; University, 75, 112, 113; visiting, 406; Volunteers, 100, 111; water-supply, 140
Havana, Bishop of, statement as to interments, 106
Havana, province, 41, 44, 46, 62, 84, 156; area, 97; population, 97; reconcentrados in, 106
Havre, trade with Haiti, 273
Hawaii, United States' annexation of, 404

"Hayti; or, The Black Republic" (St. John), cited, 283, 392
Hazard, Samuel, on the Cuban character, 102; on the city of Cardenas, 122; on the San Domingoans, 259
Hearn, Lafcadio, on the appearance of Nevis, 332; on the appearance of St. Kitts, 330; on the Martinique Jardin des Plantes, 351–353; on the people of Martinique, 354, 355, 387; his "Two Years in the French West Indies," cited, 338
Hector River, 191, 192, 196
Helix picta, 56
Hematite, in Cuba, 82
Hemp, in Jamaica, 214
Henri, King of Haiti, 275
Heredia, 101
Hermanos, Marques dos, 114
Hermanos, Marquis d', on the character of Toussaint L'Ouverture, 294
Herrera, Antonio, 123
Heureaux, General Ulysses, President of San Domingo, 255
Hicks River, 196
Hides: in Barbuda, 322; Cuba, 131; Porto Rico, 161; Santo Domingo, 255
Highways: in Cuba, 89; Jamaica, 90
Himalayas, 31
Hispaniola, 236
Hoe, Rio, 196
Hole in the Wall, Great Abaco, 299
Holguin, 63, 98, 107, 126, 127
Holland, manufacture of curaçao in, 372; pirates of, 64; possession of: Curaçao, 371; St. Martin, 320, 402; trade with: Haiti, 273; Trinidad, 367; West Indian possessions, 25, 26, 328–330, 366, 371, 372
Honduras, 4, 8, 13, 186, 228; deportation of Caribs to, 362
Honduras, Gulf of, 186
Honduras Sea, 24
Honey: in Cuba, 91, 127; Porto Rico, 163; Santo Domingo, 255, 269
Hoodooism, in the United States, 394–399. See also VAUDOUX; VAUDOUXISM; VOODOOISM
Hope Gardens, Jamaica, 214
Hope River, 188
Horses: in Anguilla, 319; Barbuda, 321; Cuba, 81, 111, 137; Grand Cayman, 234; Jamaica, 215; Porto Rico, 161; Santo Domingo, 250; Tobago, 371
Horseshoe Reef, 15, 315
Hospitality, in Porto Rico, 167
Hospital of Santa Rosa, San Juan, 176
Hotel Inglaterra, San Juan, 175
Houlemont, the, 338
Howell, J. C., deep-sea explorations by, 14
Humacao, city, 156, 181
Humacao, department, 156, 165
Humacao, Rio, 148
Human sacrifices, in Jamaica, 229. See also CANNIBALISM
Humboldt, Baron F. H. A. von, on the scenery of Cuba, 42; climatic records in Cuba, 52; on the flora of Cuba, 53
Humidity, 13
Humming-bird, the, 56
Hurricanes, 12, 52, 305; in Antigua, 325; Cuba, 12, 52; Guadeloupe, 341; Martinique, 348; Montserrat, 336; Porto Rico, 152; St. Thomas, 312, 313; in 1786, 12; 1819, 312; 1837, 312; 1846, 52; 1867, 313; 1896, 52, 336
Hyde, John, statistics of Cuban trade by, 93–95
Hygiene, rules of, 60, 61
Hypnotism, connection with witchcraft, 394
Ice, in Jamaica, 215
Icotea de Limon, 249
Iguana: in Cuba, 55; Santo Domingo, 250
Île de la Tortue, 239, 250, 276
Île du Rhône, 363
Illegitimacy, in Jamaica, 228
India, coolies in Trinidad from, 369
Indian corn, 53
Indians: in Porto Rico, 166; Santo Domingo, 238; murder of Columbus's men by, 252
Indigo, in Haiti, 272, 289
Injuriado, 79, 80
Inquisition, in Santo Domingo, 253
Insanity, in Cuba, 113
Insects, in Jamaica, 199
Institute of Jamaica, 206
Intendencia, the, San Juan, 175
Intermittent fever: in Cuba, 57; Porto Rico, 153
Intestinal diseases, 58
Intransigents, 99
Ipswich River, 193
Ireland, emigration to Jamaica, 203, 204
Irish dialect among Bahama negroes, 301
Irish negroes, 390
Iron: in the Antilles, 32; Cuba, 81, 82, 131, 141, 380; Porto Rico, 151, 162; Santo Domingo, 245, 258, 272, 380
Ironwood, in Martinique, 346, 347
Isabella, Santo Domingo, 245, 252
Isabel Segunda, 183
Islas de Pasaje, 183
Isle of Pines, 24, 36, 38, 44, 53, 56, 117, 124, 136, 143, 144, 183; cable communication with Havana, 90; oranges, 81; people, 102; Spanish penal institution, 69
Isthmus of Panama, 35, 381; communications with New York, 405
Italy, negro soldiers in, 340; United States' trade with, 93

Jacaguas, Rio, 148
Jacmel, 245, 273–275, 281, 282
Jagua, Bay of, 123
Jamaica, 4, 7, 9, 11–13, 16, 21, 24–26, 35, 55, 129, 150, 185–236, 238, 240, 249, 256, 393, 404; abolition of slave-trade, 204; administration, 25, 375; administrative connection with Turks and Caicos islands, 303, 304; agriculture, 204, 208–215, 228; the alphabet in, 232, 233; apprenticed labor in, 370; area, 18, 146, 147, 186, 208, 226; attached islands, 233–235; British rule, 201–208, 214–217; cable communications, 90, 276; caverns, 196, 197; cities and villages, 219–223; climate, 200, 201, 219, 235; coast-line and harbors, 186, 188, 190, 193, 194, 197, 200, 223, 224, 234, 235; communication with: Cuba, 87; New York, 405, 406; Cubans in, 102; death-rate, 201, 389; dialect, 232, 233, 286; diseases, 200, 201; disturbances in, 205; earthquakes, 221; economy, 211; education, 206, 207, 214; emancipation, 204, 205; emigration to Haiti, 295; English possession of, 360; expulsion of yellow fever from, 59; fauna, 199, 200, 206; finances, 207, 208; flora, 188, 189, 195, 197–199, 206; fruit, 188, 198, 210, 211, 214; geographical situation and features, 3, 4, 185 et seq.; geological features, 189–194; healthfulness, 57; hospitality, 202; hotels and inns, 225; judiciary, 206; labor, 142; markets, 231, 232; maroons, 104; military station, 359; mineral springs, 225; miscegenation, 226; morality, 228–230; mountains, 27–31, 186–194, 196, 197, 200, 229, 230; name, 203; people, 203–205, 207, 214, 216, 219, 223–235, 285, 389; political divisions, 205; popu-

Jamaica—*continued*
lation, 18, 225, 226; prison system, 206; railways, 209, 216, 217, 223, 228; religion, 207; rivers, 191-197; roads, 90, 217, 224; sanitation, 105, 200-202, 205, 206; savagery, 229; seized by the English, 203; shipping, 209-211, 217, 218, 223, 235; Spanish occupation, 203; summit of prosperity, 204; superstition, 229, 395, 396; telegraph lines, 217; trade-winds, 11; trade with Barbados, 375; visiting, 406
Jamaica, Cuba, 89
Jamaica Agricultural Society, 214
Jamaican Channel, the, 16
Japan, trade with the United States, 93
Jardin des Plantes, Martinique, 351-353
Jardines, the, 37, 38
Jardinillos, the, 38, 44
Jaruco, 63
Jatibonico, Rio, 47
Java, sugar in, 77
Jean Rabel, 282
Jeffrad, General, President of Haiti, 268, 283, 295
Jérémie, 274, 275, 281
Jerusalem, Jamaica, 193
Jesus del Monte, 116
Jews, in Jamaica, 203, 204, 207, 223, 226, 227
Jiguani, 63
Jimonea, 243
John Crow Hill, 189
Josephine, Empress, 352, 353, 388
"Journal of American Folk-lore," cited, 399
Juacaro, 123
Julian II, founds bishopric of Porto Rico, 157
"Jumbies," 229, 395
Junki, the, 43
Jupiter Inlet, 10
Juragua, 82, 89, 131
Juragua Company, the, 82
Jurassic period and formations, 40, 41

Kaja de Muestos, 151
Kenskoff, 280
Kentucky, the caves of, 49
"Key of the New World," the, 33, 108
Keys, 21, 35-38, 44, 132, 235. See also REEFS
Key West, 35, 90
King's House, Kingston, 221, 232
Kingsley, Charles, on the Grenadines, 363; on Jamaica, 225; on the town of St. Thomas, 312; on the Virgin Islands, 310
Kingston, Jamaica, 186, 188, 189, 194, 197, 200, 206, 207, 211, 215-217, 219-224, 226, 229; climate, 219; earthquake of 1693, 221; population, 219; society, 226; trade-winds, 11
Kingstown, St. Vincent, 26, 361, 362
King's Valley, 193
Kittefonians, 331
Krakatau, explosion of, 361

Labor: in Antigua, 324; Barbados, 376, 378, 379; Costa Rica, 228; Cuba, 105, 135, 138, 139, 141, 142, 389; Guatemala, 228; Honduras, 228; Jamaica, 142, 226-228, 370; Martinique, 356; Nicaragua, 228; Panama, 228; Porto Rico, 159, 160, 168, 172, 175, 178, 182, 184, 389; St. Kitts, 331, 332; St. Vincent, 362; Trinidad, 369, 370; West Indies, 400-402
La Brea, 368, 369
La Caimanera, 89
La Capilla church, San Juan, 175
La Carolina, 161
La Carolina sugar-plantation, 131, 132
La Catalina, 88
La Chameau, 339
La Convalecencia, 182
La Croix des Bouquets, 280, 282
La Cruz, 129
L'Acul du Nord, 276
Ladder, the, Saba, 329
La Ferrière, fortress of, 242, 276
Laguna Enriquillo, 248
La Haute Mountains, 264
La Isabella, 88
La Miranao, 114
Landholding, in the West Indies, 401, 402
Land-turtles: in Barbuda, 150; Santo Domingo, 250; Sombrero, 150; South America, 150; Trinidad (island), 150
La Pila, mineral springs of, 49
La Plaine du Nord, 276
La Punta, fort of, 108
Lares, Porto Rico, 152, 179
Las Cahobas, 282
Las Casas, Bishop Bartolomé, on the Bay of Jagua, 123
Las Casas, Captain-General, brilliant rule in Cuba, 64-66, 113
Las Delicias, Playa, 178
La Selle Mountains, 244
La Soufrière, Guadeloupe, 338
La Soufrière, St. Lucia, 357
La Soufrière, St. Vincent, 361
Las Playas, 88
Las Roques, 23
Las Tunas, 63, 89
Latin races: in America, 166, 167; Cuba, 142; West Indies, 388
La Tortue Island, 264
La Union, 88
La Vega, 259
La Vega, city, 245
"Leeward," the word, 11
Leeward Islands, 25, 297, 306, 311, 322, 335, 375
Le François, 353
Lemons: in Cuba, 131, 132, 136; Haiti, 272; Jamaica, 210; Porto Rico, 150, 179; St. Croix, 316
Le Montine, 353
Le Moule, 341
Léogane, 264, 282
Lépidosteus, the, 56
Leprosy, in Cuba, 113, 114
Les Escaliers, 244
"Les Pays des Revenants," 345
Les Saintes, 339, 341
Lesser Antilles, 16, 21, 160, 162, 209, 217, 218, 236, 273, 297, 305-308, 311, 312, 323, 332, 335, 359, 365, 371, 382, 401; English supremacy over, 404; immigration, 389; slavery, 305-307; trade with: Haiti, 273; Jamaica, 217, 218; Porto Rico, 162
Lia Minga, 332. See also ST. CHRISTOPHER
Liberian coffee, in Jamaica, 212
Lignite, in Santo Domingo, 249
Lignum-vitæ: in Cuba, 53; Haiti, 271
Liguanea plain, 188, 194
L'Île-à-Vache, 264
Limbé, 282
Limbé, Cape, 244
Limes: in Cuba, 131, 132, 136; Dominica, 342, 344; Jamaica, 210; Montserrat, 335
Limonar, Cuba, 49
Lincoln, Abraham, recognizes the independence of Haiti, 267
Little Cayman, 235
Little Monkey Island, 183
"Little Paris," Haiti, 275
Liver complaints: in Cuba, 57; Porto Rico, 153
Liverpool, England, slave-trade of, 204
Lizards, in Santo Domingo, 250
"Llave del Nuevo Mundo," 108. See also "KEY OF THE NEW WORLD"

Logwood: in Cuba, 53, 81; Jamaica, 198; Santo Domingo, 255, 269, 271
Loiza, Rio, 148
Loma Diego Campo, 245
Lomas de Camoa, 42
Lomo del Puerto, 126
London, communications with the Bahamas, 301; Cubans in, 101; death-rate, 58
Long, on the climate of Grand Cayman, 235
Long Island, Bahamas, 298, 302
Long Key, 302
Lopez, General Narciso, revolt of, 66, 67
Los Molinos, Matanzas, 122
Los Roques, 365, 366
Lottery, the, in Cuba, 72
Louisiana, 8; French colonial life in, 338; protection of sugar-planters, 404; sugar-lands, 76; voodooism, 393-396
L'Ouverture, Toussaint, 254, 277, 278, 292-294
Lung troubles, in Cuba, 143
Lynching, in the United States, 390

Maceo, Antonio, 104, 132
Machete, the, in Porto Rico, 168
Machina wharf, Havana, 110
Macoris, 259
Madrid, inquiry into Cuban wrongs at, 67
Madruga, mineral springs of, 49
Magari, Rio, 47
Magdalena, Rio, 3
Magnetic iron, in Santo Domingo, 245
Mahan, Captain, records Rodney's victory, 360
Mahogany: in the Bahamas, 299; Cuba, 53, 81, 91, 131; Grand Cayman, 234; Martinique, 346, 347; St. Croix, 316; Santo Domingo, 255, 257, 264, 271
Maize, in Porto Rico, 160
Maja, the, 56
Malachite, in Porto Rico, 151
Malaria: in Cuba, 121; Haiti, 279; Jamaica, 200; West Indies, 61, 389
Malarial fever, 57, 61
"Mamposteria," 260
Manai, Rio, 248
Manatees: in Bahamas, 298; Cuba, 56; Jamaica, 199
Manati, Rio, Cuba, 126
Manati, Rio, Porto Rico, 148
Manchester Parish, 191, 193, 196, 197, 212
Mandel de los Negros Marron, 244
Mandeville, 225
Manganese: in the Antilles, 32; Cuba, 82, 83, 130, 131, 380; Santo Domingo, 249, 272, 380
Mangos: in Haiti, 272; Jamaica, 198; Porto Rico, 150, 160; St. Croix, 316; St. Kitts, 331
Mangrove islands, 15, 24, 37
Mangroves: in Bahamas, 299; Porto Rico, 174
Manioc, 53
Manjack, in Barbados, 377, 381
Manteca, 203. See also MONTEGO
Manzanilla Bay, 38, 238, 239, 241, 248
Manzanillo, 45, 63, 86, 98, 107, 127
Maracaibo, the Gulf of, 3, 365
Marble, in Santo Domingo, 249
Margarita, 19, 23, 365, 372
María Galante, 19, 23, 25, 318, 319, 325, 339, 341, 342, 373
Marianao, 57, 88, 117
Maricao, 152
Mariel, 40, 118
Marigot, St. Martin, 320
Marina, Porto Rico, 174
Marine fauna and flora: Bahamas, 298; Caribbean Sea, 14-16
Maroons: in Haiti, 242; Jamaica, 104, 205, 230
Maroto, 83
Marriage: in Cuba, 74, 102-104; Haiti, 286
Marseilles, the lemons of, 136
Martin, Montgomery, on the island of St. Lucia, 357
Martinique, 23, 25, 34, 151, 201, 202, 306, 326, 328, 329, 334, 337, 338, 340, 342, 345-360, 403; administration, 25, 348; agriculture, 338, 348, 349; altitude, 23; area, 19, 345; cable communications, 353; climate, 347, 348; commerce, 348; costume, 354, 355; earthquakes, 353; education, 348; fauna, 347, 351; flora, 345-347, 349, 351-354; forests, 345-347, 351-353; harbors, 348, 349; introduction of coffee from, into Cuba, 80; labor, 356; mountains, 345, 346; people, 285, 338, 340, 354-356, 387, 388, 395; population, 19, 354; quarantine against, 405; roads, 273; superstition, 395; trade with Porto Rico, 159, 160; visiting, 406
Martinpena, Lake, 148
Marvin, A. R., on the minerals of Santo Domingo, 249
Mascarene Islands, the tortoise in, 150
Masio Bay, 125
Massachusetts, the great submarine shelf off, 22; superstition in, 396, 397
Matanzas, city, 37, 42, 45, 48, 49, 63, 86, 88, 107, 108, 117, 120-122, 141; climate, 51, 121; fortifications, 64; industries, 121; population, 98, 120; slave plot, 67
Matanzas, province, 41, 42, 44-46, 62; area, 97; population, 97, 120; reconcentrados in, 106
Mayaguana, 302
Mayaguez, city, 156, 157, 161, 172, 178, 179
Mayaguez, department, 156, 165, 183
Mayaguez, Rio, 148, 179
Maymon River, 258
Maysi, Cape, 35, 44, 132, 136
Mediterranean Sea, the lemons of the coasts, 136; the Liverpool of the, 137; overrun by the Atlanteans, 381
Memory Rock, 10
Merced Church, Havana, 112
Mercury, in Porto Rico, 151
Mesa Toar, 43, 47
Mesozoic era and formations, 40
Mestizos: in Jamaica, 226; Porto Rico, 166
Methodists, in Jamaica, 207
Mexican Plateau, the, 3, 6
Mexico, 1, 5, 6, 8, 35, 87, 154, 195, 202, 274; architecture, 110, 111; arid lands, 33; communications with New York, 405; conquest of, 368; Cubans in, 102; currency, 163; Spaniards in, 289; trade with Jamaica, 217; triumph over yellow fever, 59
Mexico, Cave of, 196
Middlesex County, Jamaica, 205
Milk River, 196
Milot, 276
Mineral and thermal springs: in Cuba, 119, 142; Dominica, 342; Guadeloupe, 338; Jamaica, 195, 196, 225; Nevis, 333; Porto Rico, 151, 178; St. Lucia, 357
Minerals. See the names of the various islands and of specific kinds
Minho River, 192, 196
Minorca, emigration to Jamaica, 204
Miragoâne, 275, 281
Mirebalais, 282
Miscegenation: in Barbados, 378; Cuba, 104; Haiti, 290; Jamaica, 226
Missionary zeal, misapplied, 288
Mississippi, 8
Mississippi River, the, 10
Misterosa Ridge, the, 29, 30

Moa, Rio, 47
Molasses. See SUGAR
Mole St. Nicolas, 90, 259, 274, 276, 277
Mona Island, 24, 182, 183
Mona Passage, 16, 178, 183
Moneague, 192, 196, 203, 225
Mongoos: in Jamaica, 199; Martinique, 347
Monito, 183
Monkey Hill, 331
Monks, the, 365
Monologues, the negroes', 286
Mon Rouge, 351
Montagnes Noires Cahos, 246
Mont Agua, 203. See also MONEAGUE
Monte Cristi, 259, 262
Monte Cristi Mountains, 240, 245, 246
Montego, 203
Montego Bay, 194, 195, 216, 217, 223
Montego River, 195
Monte Tina, 29
Montpelier, 225
Montpelier Sink, 193
Montpelier Valley, 191, 193
"Montpellier of the West," 334
Montserrat, 23, 25, 326, 328, 329, 334–338, 357, 358; administration, 335; area, 19, 334; climate, 334; hurricane, 336; population, 19, 335; public works, 336; vicissitudes of history, 334, 335
Montserrat, the shrine of, Porto Rico, 151
Moorish architecture, 111
Morality, in Cuba, 101, 102; Haiti, 286–288
Morant Bay, 223
Morant Keys, 235
Moravians, in Jamaica, 207
Moreau, on Santo Domingo scenery, 243
Morgan, Sir Henry John, corsair, 204
Morgan's Gut Valley, 191
Morne Diabloten, 342
Morne d'Or, 242
Morne d'Orange, 350
Morne du Cap, 245, 246
Morne Garon, 361
Morne Parnasse, 351, 352
Mornes de la Hotte, 244
Moron, 45, 63
Moron-Jucara trocha, the, 89
Morro Castle, Havana, 64, 108–110
Morro Castle, San Juan, Porto Rico, 173, 174
Morro Castle, Santiago, 128
Morvan, superstition in, 399
Mosquito Gulf, the, 9
Mosquito Reef, the, 9
Mouchoir Bank, 298
Mount Busu, 246
Mount Carbet, 345
Mount Diablo, 191, 192
Mount Hillaby, 373
Mount Liberty, 331
Mount Misery, 331
Mount Pelée, 345
Mount Plenty Cave, 197
Mouth of the Dragon, 366
Mouth of the Serpent, 366
Mouth River Cave, 197
Muertos, cave of, 151
Mulattos: in Cuba, 104, 105, 112, 284; Guadeloupe, 342; Jamaica, 204; Martinique, 354; Porto Rico, 284; Santo Domingo, 32, 237, 251, 258, 282, 284, 290, 291
Mules: in Barbados, 376, 379; Cuba, 137
Mulgrave River, 193
Murder, in the West Indies, 390
Murga, 88
Music, in Haiti, 286, 287
Mustique, 363
Naguabo, 181
Naguabo, Rio, 148
Nalgo de Maco, 29
Napoleon, Cuba declares war against, 65; overthrows the Spanish dynasty, 65; use of West Indian negroes in his army, 340
Nashville, Tennessee, superstition in, 397
Nassau, N. P., 7, 300–302
Nassau, island of, 25
Navassa, 24, 26
Navidad Bank, 298
Nectarines, in Cuba, 136
Negroes, as sailors, 301, 321; an Irish brogue among, 335; labor of, 79; love for countries of adoption, 295; nomenclature in Haiti, 287; religious trances, 396; respect for the whites, 402; revolt in Cuba in 1844, 66; under British rule, 32; witchcraft among, 392–399; in Antigua, 323, 324; Bahamas, 301, 302, 304; Barbados, 285, 370, 376, 378, 379; Barbuda, 321, 322; Cuba, 97, 99, 103–106, 112, 115, 142, 168, 389; Curaçao, 371; Dominica, 343; Fortune Islands, 301, 302; Grenada, 364; Guadeloupe, 340, 342; Haiti, 32, 251, 253, 254, 392; Jamaica, 32, 105, 142, 199, 203–205, 212, 214, 216, 217, 220, 221, 223–233, 235, 285; Lesser Antilles, 306, 307; Martinique, 285, 353–356; Montserrat, 335; Nevis, 333; Porto Rico, 105, 164–166, 168–170, 389; Saba, 330; St. Eustatius, 330; St. Kitts, 331, 332; St. Lucia, 359; St. Vincent, 370; Santo Domingo, 237, 242, 251, 253–260, 265–267, 282–295; South America, 170; Trinidad, 169, 369, 370; United States, 105, 390, 391, 393–399; Virgin Islands, 311, 313, 315–317; West Indies, 104, 105, 168–170, 387, 389–399, 401, 402. See also BLACKS; COLORED; MULATTOS; SLAVERY; SLAVE-TRADE
Nelson, Horatio, marriage in Nevis, 333
Nesbitt, Mrs. Fanny, married to Horatio Nelson, 333
Nevis, 19, 23–25, 326, 329, 330, 332–334
Newcastle Barracks, 188, 197
Newell, W. W., on vaudouxism, 399
New Orleans, climate of, 152; obiism in, 395, 396; rainfall, 50
New Providence, 298–300, 302
Newtown, Matanzas, 121
New York, cable communications: with Cuba, 91; Haiti, 276; communications with: Bahamas, 301, 303; Central America, 405; Guadeloupe, 337; Mexico, 405; West Indies, 405–407; Cubans in, 102; trade with: Haiti, 273; Jamaica, 218, 223; West Indies, 17
Neyba River, Santo Domingo, 31
Niagara River, Jamaica, 191, 193, 196
Nicaragua, 4, 24, 228
Nievis, 332. See also NEVIS
Nipe, Cuba, 47, 86, 132
Norman Islands, 310
Norte, El, 52. See also NORTHERS
North America, the continent of, 1, 2, 5, 383, 385, 386
Northers, 12, 52, 158, 173, 180, 183
Norway, United States' trade with, 93
Nova Scotia, 4
Nova Zembla, 10
Nueva Gerona, 144
Nuevitas, 63, 80, 86, 89, 127, 132
Nutmeg, in Trinidad, 367

Oaxaca, 4
Ober, F. A., his "Camps in the Caribbees," cited, 338
Obiism: in Barbados, 378; Haiti, 287; Jamaica, 229; West Indies, 392–396
Ocampo, 123
Occa, Terésa Montes de, 101

Ocoa, Bay of, 247
Old Bahama Channel, the, 9, 22
Old Jerusalem Island, 310
Old Providence Islands, 24
Oligocene series and epoch, 41
Opal, in Santo Domingo, 249
Opossum, in the Bahamas, 299
Oranges: in the Bahamas, 300; Cuba, 76, 81, 136; Florida, 210; Haiti, 272; Isle of Pines, 81; Jamaica, 198, 210, 231; Martinique, 350; Porto Rico, 150, 178, 179; St. Croix, 316; Trinidad, 367
Oreodoxa regia, 53
Orinoco River, 4, 7, 8, 186, 286
Oruba, 366, 372. See also ARUBA
"Our Lady of the Snow," 333
Oxford Basin, 193
Ozama River, 248, 260, 261

Pacific coast, the fruit industry of the, 136
Pacific Ocean, 1, 3, 386
Padre, 132
Pajita Inlares, cave of, 151
Paleozoic era and formations, 40, 43, 310, 384
Palisades, the, Jamaica, 219, 221
Palma, Rio, 47
Palm Beach, Florida, communications with the Bahamas, 301
Palmira, 88
Palms: in Cuba, 53–55, 79, 129, 144; the Caribbees, 327, 331; Grand Cayman, 234; Jamaica, 198; Martinique, 346, 351–353; Porto Rico, 147, 149, 159, 167, 168; Trinidad, 367; Virgin Islands, 311, 316
Panama, 8, 12; trade with Jamaica, 217
Panama, Isthmus of, 1, 4, 6, 9, 35, 228, 270, 381
Pan de Guajaibon, 40
Pan de Matanzas, 42, 44
Papaimento, 371
Paradise Peak, St. Martin, 320
Paria, Gulf of, 366, 367
Paris, France, Cubans in, 101; education of Haitians in, 285, 286; the Grand Seminary of Haiti, 268
"Paris of Haiti," the, 275
Parrots: in Cuba, 56; Jamaica, 199
Partido de Fuera, 62
Partidos, 63
Paseo, the, Havana, 111, 115
Paseo, the, Matanzas, 121
Patti, Adelina, her début in Santiago, 130
"Pays des Revenants, Les," 345
Peaches, in Cuba, 136
Pearl-fisheries, Panama, 300
"Pearl of the Antilles," the, 53, 408
Pearls, in the Bahamas, 300
Pedernales, Rio, 47
Pedro Bank, 30, 186
Pedro Keys, 235
Pedro River, 196
Pelée, Mount, 345
Penalver, Conde, 114
Penones Mountains, 246
Pentacrini, 15
Pepper, in Jamaica, 214
Peru Cave, 197
Peters Island, 310
Pétionville, 280, 282
Petit Bourg, 353
Petit Goâve, 274, 275, 281
Petroleum, in Cuba, 133
Philadelphia, Cuban manganese in, 83; Cuban fruit interests, 81; trade with Jamaica, 218, 223
Philadelphia "Evening Telegram," on superstition in the United States, 398
Philip I, patron of the Cuban sugar industry, 76
Philipsburg, St. Martin, 320
Phosphate: in Grand Cayman, 234; Haiti, 272; Sombrero, 319
Phosphorescent animals, 14
Pichardo, Estéban, his map of Cuba, 36
Pico del Potrerillo, 126
Pico del Turquino, 39
Pico del Yaqui, 29, 241, 242, 248
Pijuan, 123
Pillars of Hercules, 381
Pimento, in Jamaica, 198, 208, 213, 214
Pimento-grass, 213
Pinar del Rio, city, 88, 98, 107, 118, 119
Pinar del Rio, province, 40, 44, 46, 47, 49, 53, 62, 63, 76, 79, 90, 117, 118, 143; area, 97; population, 87, 103, 106
Pineapples: in Bahamas, 300; Cuba, 53, 76, 81, 136; Haiti, 272; Jamaica, 210; Porto Rico, 160, 179
Pine River, 196
Pines, Isle of, 36, 38
Pine timber: in Bahamas, 299; Cuba, 41, 53; Santo Domingo, 243
Pinoñes, Lake, 148
Piracy, in the West Indies, 64, 305, 330, 400. See also BUCANEERS
Pitch Lake, Trinidad, 381
Piton des Canaris, 357, 358
Pitons, the, 358
Place Congo, New Orleans, obiism in the, 395, 396
Plaine du Nord, La, 276
Plaisance, 282
Plaisance, Cape, 244
Plantains: in Haiti, 272; Jamaica, 198, 225, 231; Porto Rico, 160, 167
Planters, disappearance from the West Indies, 388
Plata, Rio, 148
Platanos, 79
Platinum, in Santo Domingo, 249, 272
Plato, on the mythical Atlantis, 381
"Playa," 48
Playa, Porto Rico, 158, 177
Playa de Naguabo, 181
Plaza de Armas, Santiago, 130
Plaza de Isabella, Havana, 110
Pleistocene series and epoch, 41, 43, 384
Pliocene series and epoch, 41, 43
Plymouth, Montserrat, 334
Point-à-Pitre, 341, 342
Poisons, use in the West Indies, 394, 395, 399
Politeness, in Haiti, 286, 287
Polygamy, in Haiti, 286
Polyps, 15
Ponce, city, 156–158, 161, 172, 177–179
Ponce, department, 156, 165
Ponce de Leon, 154, 174
Ponupo, 83
Ponupo Mining Company, the, 83
Porpoises, in Santo Domingo, 249
Port Antonio, 189, 217, 223, 228
Port-à-Piment, 274
Port-au-Prince, 244, 245, 248–250, 252, 264, 267, 269, 273–275, 278–280, 282, 283; climate, 249, 250; earthquake, 280; fires, 280
Port-au-Prince Bay, 249
Port de Paix, 275–277
Porte d'Enfer, 342
Portland Cave, 197
Portland Parish, 230
Port Margot, 264
Port Maria, 187, 189, 223
Port Morant, 223
Port of Spain, 312, 367, 369
Porto Rico, 13, 16, 21, 22, 24, 25, 185, 186, 198,

Porto Rico—*continued*
202, 236, 238, 258, 296, 297, 305, 309, 311, 313, 315; agriculture, 153, 159–163, 172, 179, 181–183; architecture, 172, 174–178, 180, 181; area, 18, 146; autonomy, 156; burial of the dead, 177; cable communications, 90, 91; caves, 180, 183; ceded to the United States, 154, 404; cities, 172–184; civilization, 32; climate, 147, 151–153, 156, 178, 179, 181, 182, 184; commerce, 158–163; communications with: New York, 405, 406; St. Thomas, 313; contrasted with Cuba, 145, 146; currency, 163; departments, 156; discovery, 154; diseases, 177; education, 157, 164–166, 168, 170, 226; electric light and power, 175; fauna, 150; flora, 147–150; fruits, 149, 150; future, 184; gas-works, 176, 178; geology, 150, 151; harbors, 148, 158, 172–174, 176, 177, 179–181, 183; highways, 161; history and administration, 25, 32, 154–157; hospitality, 182; industries, 163, 175, 178–182; islands, 165, 182–184; land titles, 184; loyalty to Spain, 155; minerals, 151; mortality, 153; mountains, 28–30, 147, 150–152; people, 146, 154, 157, 164–171, 389; population, 18, 164–170, 172; press, 157; railroads, 161, 176, 179; relation to Spain, 69; religion, 156, 157; rivers, 147, 148, 153, 159; shipping, 158, 159, 173, 174, 176, 177, 180; situation and physical features, 145–153; slavery, 155, 204; social progress, 283; tariff, 183; telegraph and telephone lines, 162, 176; timber, 149, 161; trade with: Cuba, 179; Haiti, 274; visiting, 406; water-supply, 147, 148, 151–153
Port Royal, Jamaica, 201, 204, 221
Portugès, Rio, 148
Portuguese, in Antigua, 325
Potatoes, in Jamaica, 211, 214, 231
Poultry: in Cuba, 81; Grand Cayman, 234; Jamaica, 215; Porto Rico, 161
Pourtàles, Count, deep-sea explorations by, 14
Powles, on the Bahama "conchs," 301
Prado, the, Havana, 111
Precious metals, in the West Indies, 380. See also GOLD; SILVER
Presbyterians, in Jamaica, 207
Presidio Provincial, San Juan, 175
Press, the: in Cuba, 71, 72; Porto Rico, 157
Preston, Stephen, Haitian minister at Washington, 270; on Haitian cannibalism, 392, 393
Prieto, Rio, 151
Princesa, San Juan, 175
Princestown, 367
Proverbs: in Haiti, 286; Jamaica, 233, 286
Pteropods, 16
Puentes Grandes, 117
Puerta de España, 174
Puerta Plata, 252, 259, 261, 262
Puerta Plata Mountains, 246
Puerto de Tierra, San Juan, 175
Puerto Principe, province, 41, 44–47, 62, 63, 89; area, 97; cattle, 81; population, 97, 103
Puerto Principe, town, 63, 64, 89, 98, 107, 126, 127
Puerto Real de Cabo Rojo, 158
Pulmonary diseases: in Cuba, 143; Haiti, 279
Punta Arenas, Vieques, 183
Punta battery, 115
Punta Blanca, 129
Punti fortress, 64
Pyrenees, the, 29

Quakers, in Tortola, 315
Quarantine laws, in the West Indies, 60, 403, 405
"Quatties," 232
Quebec Steamship Company, West Indian service, 367, 406
Quinta, 126
Quintana, 151
Quitman, General John A., expedition to Cuba, 67

Rabbit's foot, power as a charm, 398
Race prejudice, 169
Race problems, in the West Indies, 387–399
Radiolarian earth, 374, 377, 384
Ragged Island, 302
Rainfall: in Cuba, 61, 90; Haiti, 273; Jamaica, 200; Porto Rico, 152; Santo Domingo, 248–250
Rainsford, on the character of Toussaint L'Ouverture, 293
Raleigh, Sir Walter, in Trinidad, 368
Ramon, 101
Rape, in the West Indies, 390
Rats, in Jamaica, 199
Ravine du Sud, La, 281
Real Audiencia, San Juan, 175
Reciprocity, between the United States and Spanish America, 405
Reclus, Élisée, estimate of Cuba's area, 36; on the Haitian people, 285
Reconcentration, 106
Recreo, 126
Redonda, 25
Reed, George W., monument at Spanish Town, 222
Reefs, 12, 22, 37, 38, 41, 86, 151, 180, 239, 298
Regla, 98, 109
Remedios, 123, 126
Reptiles, association with evil spirits, 394, 396, 397; in the Caribbees, 328; Jamaica, 199; Martinique, 347; Porto Rico, 150; Santo Domingo, 250.
Republica Dominicana, 254
Resano, Don Pedro, Porto Rican mineralogist, 151
"Revista de Cuba," cited, 97
Rice: in Jamaica, 214; Porto Rico, 160, 162; Trinidad, 369
Rio. See the specific name
Rio Grande, Mexico, 195
Rio Grande, Porto Rico, 148, 151
Rio Grande de Arecibo, 180
Rio Palma, Marquesa de, 114
Rivas, Don Emilio de, 132
River Head, 197
Rivière Salée, 338
Road Town, Tortola, 315
Roads. See HIGHWAYS
Roaring River, 193
Rocca, Pedro de la, 128
Rochambeau, General, expelled from Haiti, 294
Rocky Mountains, the, 2–5, 30
Rodney, Admiral, 222; statue in Jamaica, 222; advises England to retain Dominica, 344; victory over De Grasse, 360, 404
Roman Catholic Church: in Cuba, 74, 75; Haiti, 267–269; Jamaica, 207; Porto Rico, 157
Romano Key, 36, 38
Roncador Reef, 26, 30
Rosalind Bank, the, 9, 30, 186
Rosario, Falls of, 47
Roseau, 342, 343
Roume, on the character of Toussaint L'Ouverture, 293
Round Rock, 310
Royal Dutch West India Mail Service Company, Haitian service, 273
Royal Harbor, Antigua, 323
Royal Jamaica Society of Agriculture, 214

Royal Mail Steamship Company, West Indian routes, 218, 273, 282, 313, 314, 375, 376, 406
Royal palm, the: in Cuba, 53-55, 79, 129; Jamaica, 198
Royal Plain, the, 245
Ruiz, Dr. E., on the forests of Martinique, 346, 347
Rum: in Cuba, 91, 117, 121; Dominica, 342-344; Grenada, 364; Havana, 117; Jamaica, 209, 215; Martinique, 348; Porto Rico, 163, 178, 179, 181; Trinidad, 368
Rum Key, 302, 303

Saba, 19, 23, 25, 326, 329, 330, 372, 388
Sabao, 259
Sagua, 86, 88
Sagua la Grande, 63, 88, 123
Sagua la Grande, Rio, 88
Sagua River, Cuba, 31, 47
St. Ann Parish, 192, 193, 196, 197, 212
St. Ann's Bay, 223
St. Augustine, Florida, 110
St. Augustine Church, San Juan, 175
St. Bartholomew, 19, 23, 25, 318, 319
St. Catherine's Peak, 189
St. Christopher, 23-25, 319, 326, 329-334
St. Croix, 18, 315-317
Ste. Alouise, 357
St. Elizabeth, 191, 193, 196, 197, 200
Saintes, the, 15, 25
St. Eustatius, 19, 23, 25, 326, 329, 330, 372, 388
St. George, Grenada, 364
Saint Jago. See SANTIAGO DE CUBA
St. James Parish, 191, 196
St. John, 18, 21, 25, 26, 309, 311, 313, 314
St. John, Antigua, 25, 323
St. John, Sir Spenser, on Haiti and the Haitians, 275, 283-285, 293, 392
St. Kitts. See ST. CHRISTOPHER
St. Lucia, 23, 25, 34, 221, 306, 326, 328, 329, 340, 344, 357-360, 364; administration, 25, 358; agriculture, 359; area, 19; education, 358; emigration, 344, 359; fortifications, 359; French outbreak in, 360; French ownership, 358, 360; harbors, 358, 359; military station, 376; population, 19
St. Louis du Nord, 276
St. Marc, 278
St. Martin, 19, 23, 25, 319, 320, 341, 372, 380, 402
St. Nicolas Peninsula, 239, 241, 242, 247, 277
St. Pierre, Martinique, 349-351, 353, 354
St. Thomas, 12, 16, 21, 25, 26, 151, 183, 186, 309-315, 337, 359, 401; area, 18, 310; cable communications, 313; coast-line and harbors, 312-315; commerce and communications, 313, 314, 406; decline, 313, 314; emancipation, 314; hurricanes, 312, 313; languages, 313; mountains, 28, 29; offered to the United States, 313; population, 18; shipping, 313; slavery, 314; trade with: Barbados, 375; Porto Rico, 159, 160; visiting, 406
St. Thomas, Bay of, 252
St. Thomas, city, 312-314
St.-Thomas-in-the-Vale, 190-193, 197
St. Vincent, 15, 22, 23, 25, 26, 326, 357, 360-364; area, 19, 361; emigration, 362, 370; land-tenure, 402; population, 19, 361
Salem, Massachusetts, superstition in, 396
Salt, as a vegetable product, 55; in Anguilla, 319, 380; Bahamas, 300, 303, 304; Cuba, 55, 82, 85, 380; Curaçao, 371; Haiti, 272; St. Martin, 320, 380; Santo Domingo, 262; Turks Island, 380
Salt Island, 310
Salt Key, 15, 303
Sam, General Tiresias Simon, President of Haiti, 266
Samana, 259, 262, 298
Samana Bay, 238, 239, 241, 246, 252, 257-259, 262
Samana peninsula, 238, 239, 241, 246
Sambo Hills, 246
San Antonio, bridge of, 173
San Antonio, Cape, 35
San Antonio, Rio, 47, 48
San Antonio de los Baños, 63, 118, 119
San Catalina fortress, Porto Rico, 174
Sanchez, 259
San Cristobal, 62, 63, 118, 119
San Cristobal fort, Porto Rico, 174
Sancti Spiritus, 89
Sandalwood: in Barbuda, 322; Haiti, 271; Porto Rico, 149
San Diego, springs of, 49
San Domingo, city, 241, 247, 248, 252, 259-262, 380-384
San Domingo, coast-line and harbors, 259-262; commerce, 255-257; communications with St. Thomas, 313; Cuban immigration, 255; diplomatic relations with Haiti, 270; earthquakes, 261; education, 256; finances, 255; Haitian negroes sold to, 292; hostility to Haiti, 251, 252, 254; language, 258; minerals, 257, 258; people, 258-260, 387, 389; political and social conditions, 251 et seq.; population, 258; post-office, 259; press, 256; question of annexation to the United States, 254, 255, 404; railways, 255, 259; religion, 256; the republic, 236, 243, 247, 251-262, 298; roads, 259; shipping, 259; telegraphs, 259; union with Haiti, 295; vicissitudes in her history, 251-255; visiting, 406. See also SANTO DOMINGO
San Domingoans, 236
San Felipe, 88
San Fernando, 367, 368
San Fernando, Cuba, climate, 52
San Francisco Church, San Juan, 175
San German, 147, 181
San Geronimo, San Juan, 175
Sanitation: in Cuba, 113, 114; Jamaica, 105; West Indies, 407
San José Church, San Juan, 175
San José de los Mates, 243
San Juan, Porto Rico. See SAN JUAN BAUTISTA DE PUERTO RICO
San Juan, San Domingo, founded, 252
San Juan Bautista de Puerto Rico, 150-152, 156-158, 161, 172-179, 184, 260
San Juan de los Remedios, 63
San Juan River, Cuba, 120, 122
San Juan River, Santo Domingo, 241, 248
San Luis, 89
San Miguel sulphur baths, Cuba, 49
San Nicolas, Gulf of, 252
San Salvador, 6
Sans Souci, Haiti, 276
Santa Alalla, cascade of, 151
Santa Ana Church, San Juan, 175
Santa Clara, city, 122, 126, 139
Santa Clara, Cuba, province, 41, 42, 44-46, 62, 123; area, 97; cattle, 81; population, 97, 103; reconcentrados in, 106
Santa Cruz, 19, 25, 151. See also ST. CROIX
Santa Elena, San Juan, 175
Santa Fé, Isle of Pines, 144
Santa Fé, Rio, 144
Santa Maria del Rosario, 63
Santiago, Santo Domingo, 252, 259
Santiago, valley of, 246
Santiago Bay, 83
Santiago de Cuba, 29, 40, 42, 44, 63, 79, 81, 82, 84-87, 89, 90, 107, 117, 124, 127-131, 136, 200, 234; archbishopric, 74; battle of, 44; cable communications, 90; climate, 51, 131;

Santiago de Cuba—*continued*
foundation, 64; population, 98, 99, 131; trade with Haiti, 274; visiting, 406
Santiago de Cuba, province of, 39, 42–47, 62, 63, 81, 89, 97, 103
Santiago de las Vegas, Cuba, 63
Santiago de la Vega, Jamaica, 222
Santiago de los Caballeros, 261, 262
Santo Domingo, 9, 16, 21, 22, 24, 25, 29, 123, 145, 183, 185, 190, 202, 203, 236–250, 297, 298; aborigines, 252; administration, 24, 25; agriculture, 252, 253, 256, 257; area, 18, 238; bones of Columbus, 113; climate, 249, 250; coast-line and harbors, 238, 239, 241, 246, 248, 259–262; communications with New York, 405, 406; currency, 256; discovery, 237, 245, 252; earthquakes, 261, 275, 276; emancipation, 237; emigration to Porto Rico, 155; fauna, 242, 249, 250; flora, 243, 246, 247; fruits, 257, 263, 272; geology, 249, 384; lakes, 241, 245, 246, 248, 249; lost to Spain, 65; minerals, 245, 249, 257, 258, 271, 272; mountains, 29, 30, 239–250; people, 251 et seq., 389; population, 18; post-office, 259; quarantine against, 405; railways, 255, 259; repulse of the English from, 203; rivers, 240, 242, 243, 245, 246, 248, 264, 276; roads, 259; slavery, 237; Spanish occupation, 248, 249, 290; stormy history, 237, 248, 252–255, 258; superstition, 245; telegraphs, 259; trade with Porto Rico, 159. See also HAITI; SAN DOMINGO
Santo Domingo, Cuba, 88
Santo Domingo Improvement Company, 255, 256
Santo Espiritu, Cuba, 63, 64, 98, 107
Santo Espiritu, Island 42,
San Turce, 174
Saona, 239
Sap-saps, 331
Satinwood, in Santo Domingo, 257
Savana de la Puerta, 244
Savana-la-Mar, 191, 193, 195, 223
Scaife, W. B., on the future of Cuba, 138, 139
Scarborough, Tobago, 371
Schomburgk, Sir Robert H., on the minerals of Santo Domingo, 245
Scorpion, the, 56
Scotch dialect, among Bahama negroes, 301
Scotch Kirk, in Jamaica, 207
Scotch negroes, 390
Scotland, emigration to Jamaica, 203, 204
Scotland, Barbados, 374
Scotland district, Barbados, 374, 375, 377
Scrub Island, 309
Scrutton's Steamship Company, 301
Sea-birds, on Morant Keys, 235
Sea-gardens, 298
Seals, in Jamaica, 199
Seborucco, the, 31, 36, 151, 194
Selenodon, the, in Santo Domingo, 250
Selma "Times," on superstition in Alabama, 398
Serers, 285
Serpent-worship, 393, 394, 396
Serra de Casa, Rio de, 144
Serrano, General, 124
Seville oranges, in Jamaica, 210
Seybo, 262
Seylo, Plain of, 247
Shaddocks: in Haiti, 272; Jamaica, 210
Sharks, in Santo Domingo, 249
Sheep: in Anegada, 315; Cuba, 81; Tobago, 371
Shell-fish, in the Bahamas, 299
Shells, 15, 22
Shettlewood, 225
Ship-building, in Cuba, 64
Sicily, the lemons of, 136
Sierra Cibao, 29, 241, 242, 246, 247
Sierra Cubitas, 42
Sierra de Cayey, 147
Sierra del Cobre, 40
Sierra de la Monte Cristi, 246
Sierra del Marta, 3
Sierra de los Organos, 40, 41, 79
Sierra Luquillo, 147, 151
Sierra Maestra, 4, 29, 30, 37, 39–44, 50, 82, 83, 127, 129, 131, 185, 190, 234, 240
Sierra Matahambre, 44
Sierra Zatibonico, 42
Sigsbee, Captain C. D., deep-sea explorations by, 14
Sigsbee Deep, the, 13
Sigua mines, 131
Sillon de la Viuda, 244
Silver: in Cuba, 82, 380; Santo Domingo, 249, 253, 258, 272, 380
Silver Bank, 298
Silver Hill, 189
Sir John's Peak, 189
Sisal hemp, in Bahamas, 300
Sisters of Charity, in Haiti, 269
Slavery: in Bahamas, 300; Cuba, 64, 204, 284; Guadeloupe, 340; Haiti, 284, 285, 287, 289–293; Jamaica, 204, 205, 209, 230; Lesser Antilles, 305–307; Porto Rico, 155, 169, 170, 204; St. Thomas, 314, 316; Santo Domingo, 237, 253; Tortola, 315; Trinidad, 368; United States, 284; West Indies, 400; abolished: by Great Britain, 204; in Brazil, 289; Haiti, 288, 289, 291, 294; United States, 288, 291
Slave-trade, 67, 204, 284
Smallpox: in Cuba, 113, 140; Haiti, 279; Santiago city, 131
Snake dance, in Haiti, 392, 393
Snakes, 55, 56; in Santo Domingo, 250. See also REPTILES
Snake-worship, 393, 394, 396
Socapa, La, 128
"Soldiers of Fortune," 82
Soledad estate, 124
Solenodon, the, 55
Sombrero, 19, 23, 150, 318, 319, 323
Sorcery: in France, 399; United States, 398
Soulouque, Emperor of Haiti, 273
South America, 23, 35, 155, 186, 305, 365, 381, 383; cable communications with Cuba, 91; the continent, 1, 2, 4–6; earthquakes, 361; islands formed from the continent, 23; Spain loses her colonies in, 65, 66; Spaniards in, 289; trade with Porto Rico, 159
South American Antilles, 308, 365–372
Southward air-currents, 12
Spain, architecture, 110, 111; colonial administration, 32, 291; colonies, 69; colonization of Cuba, 64; constitution of 1836, 66; Cuba's loyalty to, 65, 66, 92; Cuba's relation to, 69, 70; currency, 163; diplomatic relations with Haiti, 270; end of her régime in Cuba, 134 et seq.; loses and regains Cuba, 64; loss of American colonies, 65, 66; losses of men in Cuba, 67; loyalty of Porto Rico to, 155; oppression and spoliation of Cuba, 65–75, 92, 138; overthrow of the Bourbons, 65; possession: of Guadeloupe, 340; Jamaica, 203, 213; Porto Rico, 154; Santo Domingo, 237, 253, 254, 258, 260–262, 289; provinces represented in Havana, 111; receipts of gold from Santo Domingo, 258; sends expedition to Haiti, 292; size compared with Cuba, 36; source of her weakness in Cuba, 90; struggles for Trinidad, 368; struggles for West Indies, 400; trade with: Cuba, 92, 93, 143; Porto Rico, 159, 162; West Indian possessions, 24, 25, 218, 311

Spaniards, in Cuba, 142
Spanish America, 404; reciprocity with, 405
Spanish-American Company, the, 82
Spanish-American mines, 131
Spanish Antilles, 306
Spanish Main, the, 155
Spanish race, in the West Indies, 387, 388, 390
Spanish Royal Mail Steamship Company, Haitian service, 274
Spanish Town, 222, 223, 225
Spanish Town Island, 315. See also VIRGIN GORDA
Spanish West Indies, visiting the, 406, 407
Sparrow Point Company, 82
Spices: in Jamaica, 213, 214; Trinidad, 367
Spiders, in Cuba, 56
Sponges, in the Bahamas, 300, 303
Spruce, in Santo Domingo, 243
Standard Oil Company, works at San Juan, Porto Rico, 175
Starvation, in Cuba, 106
Steelton Company, the, 82
Sternberg, **Surgeon-General**, on yellow fever in Havana, 58, 59
Stoddard, **Charles A.**, his "Cruising in the Caribbees," cited, 330
Stomach complaints, in Cuba, 57
Strait of Florida, the, 9, 10, 15, 17, 35
Strait of Yucatan, the, 10, 15
Straits of Sunda, explosion in, 361
Stuart, **William H.**, 131
Suffrage, in Porto Rico, 155
Sugar, bounties, 78; the impoverished industry, 77, 78; in Antigua, 76, 323–325, 331; Antilles, 32; Barbados, 374–376, 379; Cuba, 34, 44–46, 49, 62–64, 76–78, 87–91, 94, 95, 103, 105, 106, 109, 120–127, 131, 132, 136–139, 256, 376, 400; Dominica, 342–344, 401; Germany, 401; Grenada, 364; Guadeloupe, 339, 340; Hawaii, 404; Jamaica, 198–200, 208–210, 212–215, 224, 228; Java, 77; Lesser Antilles, 306, 307, 401; Louisiana, 404; Martinique, 348, 349; Mexico, 77; Montserrat, 335; Porto Rico, 159–161, 163, 178–183; St. Croix, 316; St. Kitts, 331; St. Lucia, 359; St. Martin, 320; St. Thomas, 314, 401; St. Vincent, 362; Santo Domingo, 253, 255–257, 262, 272, 289; Tobago, 371; Trinidad, 368; West Indies, 20, 76–78, 400–403, 406. See also BEET-SUGAR
Sugar Commission, the **British**, 324, 402
Sugar-Loaf Peak, 189
Sulphur: in the Caribbees, 380; Dominica, 342; Haiti, 272; Saba, 329; St. Lucia, 357
Sulphur baths, in Nevis, 333
Superstition: in Alabama, 398; Antigua, 395; Barbados, 395; Georgia, 397; Jamaica, 229, 395, 396; Martinique, 395; Massachusetts, 396, 397; Santo Domingo, 245; Tennessee, 397; among the Vaudois, 398, 399; in the West Indies, 392–399
Surrey County, **Jamaica**, 205
Swan Island, 24
Sweden, possession of St. Bartholomew, 320; United States' trade with, 93
Sweet potato, in Cuba, 53. See also YAMS

Taboo, the, 169
Taçon, **Captain-General**, his administration, 66, 71
Tamarinds: in St. Croix, 316; St. Kitts, 331
Tampa, **Florida**, 406
Tangle River, 196
Tariff laws, 401, 403, 405
Taverner, on superstition in Boston, 396, 397
Taxation, in Cuba, 67, 71–73, 141
Teatro Taçon, the, 111, 112
Tehuantepec, **Isthmus of**, 6
Telegraph lines, in Cuba, 90, 91
Tenencias de gobierno, 63
Tennessee, superstition in, 397
Terre Basses, **St. Martin**, 320
Terre Neuve, 277
Terry, **Don Tomas**, 132
Tertiary period and formations, 5, 28, 40, 41, 43, 150, 249, 310, 319, 328, 382–385
Tetas de Managua, 42
Tetas de Montero, 147
Texas, 8, 11, 195
Thackeray, **W. M.**, on the "nigger," 227
Tiburon, **Cape and Peninsula**, 186, 239, 248, 249, 267, 271, 274, 281
Tierra Adentro, 62, 63
Tierra Caliente, **Mexico**, the flora of, 53
Timber: in Bahamas, 299; Cuba, 41, 53, 54, 81, 91, 94; Grand Cayman, 234; Jamaica, 213; Porto Rico, 161; Santo Domingo, 243, 247, 257; Tobago, 371
Tin: in Haiti, 272; Santo Domingo, 249
Tina, **Mount**, 241, 246
Toar, **Mesa**, 43, 47
Tobacco and cigars: in Anguilla, 319; Cuba, 34, 64, 76, 78–80, 87, 88, 90, 91, 93–95, 112, 117, 119, 127, 131, 136; Florida, 102; Jamaica, 102, 208, 211, 215; Martinique, 348; Mexico, 102; Porto Rico, 159–163, 178, 179; Santo Domingo, 255, 257, 261, 262, 269–272; Tobago, 371
Tobago, 21, 23, 26, 365, 366, 370, 371; agriculture, 371; area, 19, 370; climate, 371; population, 19
Tomatoes, in Jamaica, 211
Tom-tom, the, in Haiti, 286
Tortoise: in Galapagos, 150; Mascarene Islands, 150; Porto Rico, 150, 181
Tortola Island, 21, 309, 311, 314; area, 19; emancipation, 315; population, 19; slavery, 315
Tortuga Island, 253, 365
Tortuguero, **Lake**, 148
Torture, in Cuba, 67, 71
Trade-winds, the, 11–13, 50, 52, 127, 140, 177, 276, 312, 328, 374
Treaty of Paris (1763), 64
Tree-ferns: in Cuba, 40; Jamaica, 189; Martinique, 352, 354; Porto Rico, 149
Trelawney Parish, 193, 196, 197
Triassic period and formations, 40
Trinidad, 7, 8, 21–23, 26, 312, 318, 359, 365–371, 377, 381; administration, 368–370, 375; agriculture, 368–370; area, 19, 366; climate, 367; commerce, 367–369; communications with New York, 406; discovery, 367; education, 368; flora, 366, 367; Froude on the harbor of, 403; people, 367, 369, 370; population, 19, 369; railways, 368; trade with Barbados, 375
Trinidad de Cuba, 37, 41, 42, 44, 47, 63, 79, 86, 89, 107, 123–127; climate, 51; foundation of, 64; population, 98
Trois Rivières, **Les**, 276
Trollope, **Anthony**, on Jamaica, 220, 225, 227, 230; on St. Thomas, 313; on the West Indies, 408
Tropical acclimation, 388–390
Tropical countries, relation between political disorganization and their rugosity, 240; rainfall of, 61; traveling in, 60, 61
Turgeau, 280
Turks Island, 22, 24, 25, 233, 298, 300, 302–304, 380
Turtles: in Bahamas, 299, 300; Grand Cayman, 235; Haiti, 281; on Morant Keys, 235; in Santo Domingo, 250

Tussac, researches into Haitian flora, 264
Twelve-League Keys, 38
"Two Years in the French West Indies" (Hearn), cited, 338

Ubajay, Cuba, climate, 52
Ucares, 181
"Uncle Remus" stories, 233
Union pueblo, Matanzas, 122
United Kingdom. See ENGLAND; GREAT BRITAIN
United States, 274; advantages of the liberation of Cuba, 143; arid lands, 33; caste, 390, 402; color line, 286; conjuring, 394–399; consumption of: Cuban asphaltum, 83, 84; Cuban bananas, 81; Cuban copper, 84; Cuban tobacco, 80; Cuban iron-trade with, 83; Cuban policy, 134 et seq.; currency, 163; diplomatic relations with Haiti, 270; education of Cubans in, 101, 102; emancipation, 103, 288, 291; emigration to Haiti, 295; expeditions to Cuba, 66, 67, 81; first crossing of the, 104; friendship of Great Britain for, 404; geological formation, 383; Haitians in the Revolution, 290, 291; "harnts," 395; historical connection with the Bahamas, 300, 302; hoodoo, 394–399; immigration, 142; intervention in Cuba, 95, 96, 404, 408; lynching, 390; manufactures, 405; a new winter resort for, 142, 143; possession of Porto Rico, 154; protection, 215, 300; push, 402; question of annexation of San Domingo to, 254, 255; reciprocity, 405; recognizes the independence of Haiti, 267; a refuge for Cubans, 74; relation to the West Indies, 402–408; the Revolution, 360; Rocky Mountain region, 3; St. Thomas and St. John offered to, 313; slavery, 284; tonnage in the Cuban trade, 87; trade with: Bahamas, 300, 301, 303; Baracoa, 133; Barbados, 376, 377; Cuba, 92–95, 143, 256; Grand Cayman, 234; Guadeloupe, 341; Haiti, 269, 270; Jamaica, 209, 210, 215–218; Martinique, 348; Matanzas, 121; Porto Rico, 162, 179, 181, 184; San Domingo, 256; Santiago, 131; Santo Domingo, 256; tribute to Great Britain, 222; Trinidad, 367–369; West Indian desire for annexation to, 313; witchcraft, 393–399
United States of Colombia. See COLOMBIA
United System of Havana, 88
University of Havana, 112, 113
Up-town Camp, Kingston, 221
Usine St. Madeleine, Trinidad, 368
Utuado, 151, 152

Vaca, Cabeza de, 104
Valamaseda, Captain-General, his rule in Cuba, 68, 69
Vallière, la, 242. See also MAROONS
Valparaiso, Haiti, 276
Vaud, superstition in, 399
Vaudois, superstition among the, 398, 399
Vaudoux, 392–394, 397–399. See also HOODOOISM; VOODOO
Vaudouxism, in Haiti, 393, 396, 398, 399
Vega Real, 245, 246, 257, 259, 262
Vegas, 79, 80
Velasquez, Diego, 124, 128; colonizes Cuba, 63, 64; first governor of Cuba, 108; in Trinidad, 368
Venezuela, 3, 4, 6, 8, 366, 371, 372; immigration from Dominica, 344; trade with Trinidad, 367
VeraCruz, expulsion of yellow fever from, 59
Vere Parish, 195–197
Verrettes, 278
Versailles, Matanzas, 121
"Viens-viens," 245
Vieques Island, 24, 165, 182–184
Vigia, La, 125
Villa Clara, Cuba, 46, 63, 84, 88, 126
Virazon, la, 52
Virgin Gorda, 19, 21, 309, 311, 315
Virginia, the caves of, 49; relations with Barbados, 377
Virgin Islands, 15, 16, 21, 25, 151, 183, 296, 308–315, 384; area, 18, 19, 310; communications with New York, 405, 406; decay, 315; discovery, 309; flora, 311, 314, 316; mountains, 28; population, 18, 19
"Vixen," U. S. brig of war, captured by H. B. M. frigate "Southampton," 222
Volcanic Caribbees, the, 326–336
Volcanoes and volcanic formations, 2–6, 20, 23, 24, 305; in Antigua, 323; the Caribbees, 318, 328–331, 334, 338, 340, 342, 384, 385; the Great Antilles, 384, 385; Grenada, 364; Guadeloupe, 338; St. Lucia, 357, 358; St. Vincent, 361; West Indies, 400
Vomito, 58. See also YELLOW FEVER
Voodooism, 392–394, 397–399; in Haiti, 267, 283, 287, 290; Jamaica, 229; Louisiana, 393–396
Vuelta Abajo, 41, 44, 62, 63, 79, 88, 118, 119, 257
Vuelta Arriba, the, 44, 62, 63, 88, 122, 123

Wag Water River, 189, 203, 224
Wakes, in Haiti, 286
Waldenses, vaudouxism among the, 399
Washington, D. C., climate, 51, 152; vaudouxism in, 397
Washington, George, in Barbados, 377
Washington, Lawrence, in Barbados, 377
Water, drinking, 60
Watlings Island, 298, 302, 303
Wax. See BEESWAX
Werwolf, the, 398
West End, St. Croix, 316
Western Department of Cuba, 63
Western hemisphere, division of the, 1
West India Improvement Company, 217
West Indian Regiment, the, 221
West Indies, the, 7; administration, 391, 402–405, 408; agriculture, 20, 405; area, 8; British navy in, 221, 323; buildings, 407; caste, 390, 391; classification, 18–26; climate, 12, 13, 20; communications: with Cuba, 87; United States, 405–407; Cubans in, 102; culture, 185; diverse characteristics of the islands, 20 et seq.; diversity of ownership, 402, 403; earthquakes, 361, 400; east-and-west trends, 8; education, 392, emancipation, 103, 400; emigration to Jamaica, 203; England's struggle with France in, 360; expulsion of yellow fever from, 59, 60; flora, 407; future, 400–408; geographical relations, 1–6; hydrography, 309; immorality, 103; influence of the French Revolution, 289, 290; inhabited islands, 18 et seq.; land-tenure, 401, 402; limestones, 15, 16, 23, 28, 31, 40, 41, 43, 44, 47–49, 82, 85, 150, 187–193, 195–197, 242, 245, 249, 310, 319–321; mineral resources, 32, 380; people, 387–399; political conditions, 387; quarantine laws, 405; question of annexation to the United States, 216; race problems, 387–399; rains, 147; relation to the United States, 402–408; sanitation, 388, 389, 407; slavery, 400; slave-trade, 204; speculation concerning their origin, 381–386; struggles for their possession, 400, 404, 408; superstition, 392–399; tours through, 405–407; trade with New York, 17; vegetation, 20; volcanoes, 400

"West Indies and the Spanish Main, The" (Trollope), cited, 230
Westmoreland, 191, 193, 195
Weyler, Captain-General, his barbarous administration, 69; his reconcentramiento, 106
Weyman, Surgeon-General, on yellow fever in Havana, 59
Whidden, on cannibalism in Haiti, 393
White, Andrew D., on the San Domingonns, 259
Widow's Saddle, the, 243
Wild dogs, in Barbuda, 321
Wild hogs, in Santo Domingo, 242, 250
Willemstad, 371, 372
Will-o'-the-wisp, the, 395
"Windward," the word, 11
Windward bridge, the, 381, 382
Windward Channel, the, 10
Windward Islands, 6, 8, 9, 11, 12, 15, 16, 21, 28, 297, 306, 358, 364; administration, 375; cable communications, 91
Windward Passage, the, 16, 28, 31, 35, 38, 130, 241, 247, 248, 250, 277, 298, 303
Witchcraft: in Europe, 393–395, 398, 399; Haiti, 287; United States, 393–399; West Indies, 393–399
Wolofs, 285
Women: in Haiti, 267, 269, 284–287; Jamaica, 224, 226, 228–232, 234; Martinique, 354–356; Porto Rico, 166, 167; Trinidad, 367
Wool, in Cuba, 81
Wreckers: in the Bahamas, 300; Barbuda, 321

"Xaymaca," 203

Yagua, the, 55
Yaguajay, 89
Yagua Ramas, 88
Yamanigacy, Rio, 47
Yams, in Jamaica, 214. See also SWEET POTATO
Yankee River, 196
Yaqui, Pico del, 29
Yaqui del Norte, Rio, 31, 241, 246, 248, 261
Yara, 127
Yauchia, in Porto Rico, 160
Yauco, 161
Yellow fever: in Cuba, 58–60, 101, 113, 118, 121, 131; Haiti, 279, 294; Jamaica, 201; Porto Rico, 153, 179; West Indies, 389
Yorktown, surrender at, 360
Yucatan, 4, 5, 9, 11, 15, 35; water-supply, 299
Yucatan Channel, the, 9, 15–17, 35, 38
Yumuri, the river and valley of the, 45–47, 120–122, 132
Yuna, Rio, 241, 246, 248, 262
Yunque Mountain, 147

Zanjon, surrender of, 99
Zapata, the, 44, 48
"Zombi," in Martinique, 395

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